

DOCUMENT RESUME

ED 087 366

HE 005 187

AUTHOR Harclerod, Fred F., Ed.
TITLE Planning for State Systems of Postsecondary Education. ACT Special Report Six.
INSTITUTION American Coll. Testing Program, Iowa City, Iowa.
REPORT NO SR-6
PUB DATE 73
NOTE 85p.; Papers presented at an invitational seminar for administrators of statewide boards and commissions of higher education, Colorado Springs, Colo., 1972
AVAILABLE FROM ACT Publications, P. O. Box 168, Iowa City, Iowa 52240 (\$2.00)
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Conference Reports; Educational Administration; *Educational Finance; *Educational Planning; *Higher Education; *Post Secondary Education; *Statewide Planning

ABSTRACT

Six papers were presented at an invitational seminar for administrators of statewide boards and commissions of higher education concerning planning for state systems of post secondary education. The topics cover planning: a basic responsibility for a state system; development and implementation of a state higher education plan; near, short, and long-term planning: exercises of reason and necessity; encouraging innovation through long-range planning; state plans for direct financial aid to students; and the economic base for statewide systems planning: the nature of the problem. (MJM)

HE 005187

ED 087366

Edited by: FRED F. HARCLEROD

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THE INFORMATION HAS BEEN REPRODUCED AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT THE NATIONAL INSTITUTE OF EDUCATION.

PERMISSION TO REPRODUCE THIS COPY
RIGHTED MATERIAL HAS BEEN GRANTED BY

ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE NATIONAL IN-
STITUTE OF EDUCATION. FURTHER REPRO-
DUCTION OUTSIDE THE ERIC SYSTEM RE-
QUIRES PERMISSION OF THE COPYRIGHT
OWNER.

THE AMERICAN COLLEGE TESTING PROGRAM

ERIC
Full Text Provided by ERIC

HE 005187

ACT SPECIAL REPORT SIX*

CONTRIBUTORS:

Joseph D. Boyd

Ernest L. Boyer

E. T. Dunlap

Fred F. Harcleroad

Charles R. Klasson

Robert B. Mautz

**Papers presented at an invitational seminar for administrators of statewide boards and commissions of higher education, held June 14-15, 1972, in Colorado Springs, Colorado.*

The American College Testing Program (ACT) is dedicated to the enrichment of education. It was founded as a public trust and operates as a nonprofit corporation governed by elected educational representatives from individual states or regions, and by a Board of Trustees.

A fundamental goal of ACT is to exercise educational leadership through guidance-oriented assessment and research services in order to (1) assist in the identification and solution of educational problems and (2) communicate to the general and professional publics knowledge and ideas about education.

The chief beneficiaries of ACT's services are students, secondary schools, institutions of postsecondary education, and educational researchers.

Library of Congress Catalog Card Number: 72-93730

© 1973 by The American College Testing Program

All rights reserved. Printed in the United States of America

For additional copies write:

ACT Publications, P.O. Box 168, Iowa City, Iowa 52240
(Check or money order must accompany request.)

Price \$2.00

TABLE OF CONTENTS

Chapter 1

PLANNING: A BASIC RESPONSIBILITY FOR A STATE SYSTEM

-Fred F. Harcleroad 1

Chapter 2

DEVELOPMENT AND IMPLEMENTATION OF A STATE HIGHER EDUCATION PLAN

-E. T. Dunlap 11

Chapter 3

NEAR, SHORT- AND LONG-TERM PLANNING: EXERCISES OF REASON AND NECESSITY

-Robert B. Mautz 25

Chapter 4

ENCOURAGING INNOVATION THROUGH LONG-RANGE PLANNING

-Ernest L. Boyer 35

Chapter 5

STATE PLANS FOR DIRECT FINANCIAL AID TO STUDENTS

-Joseph D. Boyd 45

Chapter 6

ECONOMIC BASE FOR STATEWIDE SYSTEMS PLANNING: THE NATURE OF THE PROBLEM

-Charles R. Klasson 59

PLANNING: A BASIC RESPONSIBILITY FOR A STATE SYSTEM

Fred F. Harclerod
President
The American College Testing Program

Enormous growth in higher education in the 1960s required new organizational forms and new patterns of governance. Demands arose—both for centralization on the one hand and, on the other, decentralization or inclusion of additional parties in the governance structure. From the institutional point of view, the main trend is toward more centralization. From the viewpoint of the state executive and the state legislature, however, the development of statewide coordinating or governing boards moves allocation decision making from them to a regulatory commission—and definitely is a decentralizing move. Wing has pointed out that interinstitutional resource allocation is difficult

in a system as complex as higher education in the U.S. today. Thus, in order for postsecondary education to function effectively and efficiently, responsibility for decision making must be delegated from the top down until sufficient organizational levels exist for effective operation . . . the emergence of state-level planning agencies is an example of precisely this phenomenon. State governments have been unable to cope with the growth and complexity of higher education and have been forced to establish new agencies to handle the information and decision-making overloads.¹

¹Paul Wing, *Statewide Planning for Postsecondary Education: Conceptualization and Analysis of Relevant Information* (Boulder, Colo.: Western Interstate Commission for Higher Education, March 1972), p. 17.

1. *Statewide boards and/or commissions for postsecondary education have increased rapidly, with statutory and regulatory responsibilities. Three major variations are (a) the all-encompassing state board of education, (b) the consolidated governing board, and (c) the coordinating commission.*

Increasing financial problems in the 1970s, and another estimated 3 million students to be served by 1980, will force a continuation of this trend toward statewide coordinating commissions or governing boards. Glenny, Berdahl, Palola and others have clearly documented the changes in this direction.² The following Carnegie Commission table, taken from Berdahl's data, shows the 30-year trend toward formal coordination boards and more recently toward consolidated governing boards.³

TABLE 1
Changes in Form of State Coordination from 1939-1969

States with:	1939*	1949*	1959	1964	1969
No formal coordination	33	28	17	11	3
Voluntary coordination	0	3	7	4	1
Coordination boards	2	3	10	18	27
Advisory	(1)	(1)	(5)	(11)	(13)
Regulatory	(1)	(2)	(5)	(7)	(14)
Consolidated governing board	15	15	17	17	19

*Including the territories of Alaska and Hawaii.

SOURCE: Adapted from a study on state coordination by Robert Berdahl to be published soon by the American Council on Education.

²Lyman A. Glenny, Robert O. Berdahl, Ernest G. Palola, and James Paltridge, *Coordinating Higher Education for the '70s* (Berkeley: University of California, Center for Research and Development in Higher Education, 1971); Robert O. Berdahl, *Statewide Coordination of Higher Education* (Washington: American Council on Education, 1971); Ernest G. Palola, Timothy Lehmann, and William R. Blischke, *Higher Education by Design: The Sociology of Planning* (Berkeley: University of California, Center for Research and Development in Higher Education, 1970).

³Carnegie Commission on Higher Education, *The Capitol and the Campus* (New York: McGraw-Hill, April 1971), p. 26.

The recent move in the past few years (1967-1972) toward additional consolidated governing boards has been opposed by a number of supporters of state coordination of higher education. Glenny and others, noting the sudden move of three states from coordinating boards to single statewide governing boards, are gravely concerned since they believe

that, for most states the shift away from the coordinating board would be a major policy error based on outmoded assumptions about organization and decision processes. The exceptions would be states that have few educational institutions, little population growth, and modest industrialization. . . . The coordinating board has one great paramount advantage over a statewide governing board for the public systems. That is its ability to act as an umbrella under which a variety of other institutions, agencies, commissions, and councils relating to higher education may be placed for state coordination.⁴

In past years considerable difference of opinion has existed about the most desirable (i.e., efficient) type of agency, either statutory or voluntary, and either regulatory or advisory. This question has been resolved in most states by establishing statutory boards or commissions with regulatory powers to some degree. Now, even the coordinating boards espoused by Glenny and others have weighty powers. The push for more statewide *governing* boards and stronger coordinating commissions clearly demonstrates public and legislative desire for agencies which can be held responsible for effective functioning of total statewide postsecondary education systems. Faced with many demands for funds, state executives and state legislatures will turn, more and more, to a recognized source for key information and requests for funds.

Some states have gone even further and combined all phases of education, including postsecondary institutions, under one board. Rhode Island, for example, has recently moved in this direction. And, of course, in New York, the oldest State Department of Education (The University of the State of New York) has been responsible for two centuries for all public and private education of all types, even including museums. The movement certainly seems to be in this direction.

II. Statewide boards and commissions have a major responsibility to establish and present to the public and to state government the "case" of the institutions they coordinate and/or govern.

⁴Glenny, op cit., pp. 3-4.

In each of these three forms the state regulatory board or commission must and can state the case and present the needs to the taxpayers and their fiscal representatives in the legislature. Donald Pease, an Ohio legislator and newspaper owner, has graphically summarized the reasons for this effort and the disadvantages postsecondary education faces in the remainder of the 1970s.

First, it will be hard to sustain the effort of the '60s: inadequate though it was, for 10 more years. There will be fewer new campuses capable of fostering citizen pride; some of the glamour will be gone. The mystique of higher education has been badly damaged in recent years by student unrest and by differences in life styles between students and their elders. Beyond that, young people and others increasingly question the value of higher education at a time when there are few jobs for graduate engineers and teachers coming into the labor market. Additionally, there is genuine tax revolt, especially against property taxes, under way in this nation which will make it difficult to increase taxes for any purpose. Finally, there will be strong demands from other state agencies, some of which were not strong competitors for scarce state resources during the 1960s. . . . Environmental control . . . state appropriations for mass transit . . . a great deal of legislators' time, energy, and appropriations will go into elementary and secondary education in the years ahead . . . higher education is in for a difficult time in the 1970s in terms of operating funds, not to mention all of the other ways in which legislatures can impinge upon higher education.⁵

III. Comprehensive, statewide planning is the first and basic necessity for effective operation of any statewide board or commission for postsecondary education.

With these massive problems facing postsecondary educators, careful analysis and continuous statewide planning becomes a basic necessity. Of all the tasks assigned to such a statewide agency, the most important has to be the development of long-term master plans for program development and capital expenditure. Short-term plans, embodied in yearly or biennial budgets, must be developed from a constantly evolving, but understandable, longer-term master plan. Individual institutions and interested groups of all types (including legislators and state officials) must be involved. But the central commission or board will have to assess the needs of the state (in cooperation with other states in the region) and determine priorities, institutional missions, locations of programs, and distribution of funds. If more than one board is involved, they must cooperate. All of postsecondary education must be a part of it, including private institutions, both nonprofit and proprietary,

⁵ Donald Pease, "Higher Education Needs to Lobby," *The Chronicle of Higher Education* (November 27, 1972), p. 12.

and all types of career-oriented institutions from area vocational schools to graduate professional schools. With rational, carefully developed, dynamic statewide plans, the board or commission is in a strong position to present the case for postsecondary education.

IV. Planning at the state level has been strongly encouraged by new federal legislation in the Education Amendments of 1972.

Recent federal legislation underscores the need for comprehensive state planning and broad representation on state planning commissions. Section 1203 (a) of the Education Amendments of 1972, quoted in full, is as follows:

The Commissioner (United States Commissioner of Education) is authorized to make grants to any State Commission established pursuant to Section 1202 (a) to enable it to expand the scope of the studies and planning required in title X through comprehensive inventories of, and studies with respect to, all public and private postsecondary educational resources in the State, including planning necessary for such resources to be better coordinated, improved, expanded, or altered so that all persons within the State who desire, and who can benefit from, postsecondary education may have an opportunity to do so.

Although Section 1202, on which it is based, is optional with states, undoubtedly most of them will take advantage of the funds which are to be distributed to states which set up such a State Commission. Paragraph (a) of Section 1202 defines its breadth and could set important precedents:

Any State which desires to receive assistance under Section 1203 or title X shall establish a State Commission or designate an existing State agency or State Commission (to be known as the State Commission) which is broadly and equitably representative of the general public and public and private nonprofit and proprietary institutions of postsecondary education in the State including community colleges (as defined in title X), junior colleges, postsecondary vocational schools, area vocational schools, technical institutes, 4-year institutions of higher education and branches thereof.

In addition, states are authorized to assign to these state commissions the responsibility for other federally funded programs, such as the Higher Education Facilities ACT. In this fashion they rapidly could become management-type coordinating and governing boards. Ultimately, these new laws could push the other 49 states toward the New York model since it is the only one (as of this writing) that appears clearly to "broadly and equitably" represent *all* of the types of institutions described in Section 1202.

V. State boards and commissions which emphasize planning and evaluation of results can avoid the "trap" of expensive, duplicative operational responsibilities for individual institutions.

State boards and commissions which emphasize planning along with institutional missions and objectives; program development; budget review, presentation, and defense; and evaluation of institutional success in meeting objectives perform critically needed functions. In previous writing over the past decade, I have presented and supported the following model which describes succinctly four major responsibilities of a state board or commission.

A Model for a Statewide Coordinating Board or Commission

1. *Leadership and coordination in (a) formulation of statewide needs and policies, (b) long-range and short-range planning, (c) program development with statewide implications, and (d) establishment of statewide and institutional master plans for the development of programs and physical facilities at individual institutions.* This includes the development of guidelines, standards, and, occasionally, basic procedures to guide the operations of individual institutions.
2. *Approval of institutional objectives on which to base yearly institutional budget requests, consistent with statewide planning, guidelines, and previously approved college master plans.* Recommendation of the agreed-upon budget to the statewide board and organization of the presentations and support of the budget requests to the executive and legislative branches of government.
3. *Appraisal and evaluation of institutional achievement of approved objectives, including fiscal postaudit and analysis of institutional application of statewide policies and guidelines.* This includes a periodic review of institutional progress in achieving agreed-upon objectives and in solving problems inherent in the local situation.
4. *Advice to individual institutions, as needed and requested, on operational matters.* Responsibility and authority for operational decisions necessary for institutional implementation of systemwide policies and programs, as well as institutional policies and programs, should be located on each

campus. Statewide officers have an obligation to restrict their role to statewide activities.⁶

Hopefully, the state boards and their staffs that perform these major functions will allow responsible institutional personnel to perform campus-oriented duties without undue "red-tape" and with a maximum of efficiency in use of budgeted funds.

Horror stories abound in this area, from California to New England.⁷ A few glaring examples can illustrate the problems involved and the eventual excessive cost and inefficiency which results. At one California institution it took 3 years and an inordinate amount of expensive executive time to change the secretary for one of the deans from an intermediate stenographer clerk to a senior stenographer clerk. At another California institution excessive red tape in the work-study program delayed payments for students from July until October. Students who had counted on this money for living expenses were actually found to be "going hungry" and without food while they waited for the massive paperwork to be completed. At another California institution one business officer, who had retired from the military services and knew they dropped the actual use of red tape in 1942, indicated that on occasion he had been gently chastised in the late 1960s by state government officials for not having the red tape bows tied properly. At a fourth California institution a biology department bought a refrigerator for roughly \$200 and used it for a number of years. When it broke down, they had to spend \$150 of operating budget funds to have the old one repaired because fund transfers are not allowed for in the system. In the same department a spectrophotometer was approved but the power pack to run it was disapproved by an anonymous state employee. The spectrophotometer arrived and sat on a shelf for 2 years before the state would allow purchase of the power pack to put it to work. Statewide operational controls often develop totally unexpected results which lead to glaring inefficiencies and increased expenses. California institutions must buy most of their furniture from the Correctional

⁶Fred F. Harclerod (Ed.), *Decentralization - Key to Improved Service in the California State Colleges*, California State Colleges (limited edition report), July 1965, p. 8; Fred F. Harclerod, "Comprehensive Information Systems for Statewide Planning in Higher Education: Some Prospects and Critical Concerns," *Comprehensive Information Systems for Statewide Planning in Higher Education* (Iowa City, Iowa: The American College Testing Program, 1971), pp. 34-35.

⁷Fred F. Harclerod, *The Need for Fiscal Authority and Responsibility in the California State Colleges History, Analysis and Recommendations*, California State Colleges (limited edition report), November 1967.

Industries Division of the Department of Corrections. At one of the California institutions, furniture for a new library was delayed for a considerable amount of time when "a particularly efficient cabinetmaker was paroled." California institutions are also required to have most of their binding of periodicals and paperback books done by the State Printing Office at costs considerably above costs in the nearby community, and estimates show that these lower costs could save, in some cases, \$25,000 yearly.

These few illustrations can be multiplied hundreds and thousands of times in those systems where the central agencies control and direct local operating decisions. With a proper division of labor between central agency and campus, plus mutual cooperation and understanding, the resulting "efficiency of freedom" can produce maximum social benefits.

The central staff should remain small and concentrate on planning plus the other responsibilities in the proposed model. In that event campus operations remain the responsibility of campus personnel--and problems of local autonomy vs. central authority are minimized. Hareleroad's law, formulated several years ago, states that "local autonomy and effectiveness are inversely proportional to the size of the central office staff." Informal analyses over a decade indicate that this originally facetious statement has considerable truth to it.

Business organization also supports this concept. Textron, one of the first and most successful conglomerates, maintains a very small central staff with functions very similar to those in the model shown above. Its managerial philosophy emphasizes decentralized operations decision making, coupled with careful prior analysis of plans and budgets and postanalysis of achievement of results. The key to the Textron system and to highly successful state agency efforts is the continuing emphasis on overall planning--plus the continuing analysis and updating of the plan.

The papers which follow provide case studies of three states which have made significant efforts in the planning area--Oklahoma, Florida, and New York. A fourth paper stresses the need for cooperative endeavor between all state agencies which affect postsecondary education, with the case example of state scholarship commissions as a preeminent illustration. The final concluding paper addresses the critical problems related to the economic base for statewide systems planning.

Oklahoma provides the leading example of a state governing board which has (1) based its actions for over a decade on a well-organized planning process and a continuously evolving state plan for postsecondary education, and (2) a small but very efficient central staff. The public system governed by the Regents serves 100,000 students in over 25 institutions and has coordinative responsibilities with the private institutions in the state. A staff of 24, 9 professional and 15 clerical, efficiently serves the Regents and the institutions as the central office for this widespread system. E. T. Dunlap, Chancellor of the system, emphasizes in his paper the changing acceptance of the concept of planning by the American people and the continuing need to communicate such plans, not with and to the institutions alone but to the people whom they serve. The total community has to be involved in the planning process, including specifically major industries and service agencies. A continual reevaluation of the plan involving groups of this type makes it possible to retain flexibility and adapt to future needs.

In Florida extensive planning has taken place over many years with increasing emphasis during the past 5 years. Robert Mautz, Chancellor, warns that the legislature will have to do the planning if the board or commission does not produce a complete and satisfactory job, involving regular updates. He emphasizes in particular the problem of program review, adequate criteria and data for expansion of programs and curricula at particular institutions, and a central control mechanism which will make the plan work. He describes Florida's serious attempt to plan ahead for more than 10 years, up to 30 years. Buildings are basically planned for 50 years. Initial approvals, building plans, and construction use up 5 years of a normal planning period. In a 10-year plan this leaves 5 of the 50 years of the building life to fit with the existing building. Another 45 years of building use will come later. With this in mind, the Florida staff made a serious effort to develop super long-range plans and found that the effort, although interesting, did not seem in the final analysis to be possible of accomplishment. Perhaps the "multifold trend" system developed by Herman Kahn at the Hudson Institute may eventually be useful - but the Florida experience provides strong indications that 10-year plans with yearly updates may be the most useful approach.

One of the huge systems in New York State, the State University of New York, with approximately 70 campuses, is described by Ernest Boyer, Chancellor of the system. In his case example, he illustrates graphically the need for planning data which show developing social trends in the greater community. Using these data and applying them to the educational scene, he then demonstrates that innovation and educational adaptation are still

possible, and perhaps even more possible, in a very large system. Some of the most important innovations and changes in postsecondary education are currently taking place in the State University of New York demonstrating that innovation and change is not a characteristic of any given structure but of the vision and the will of those in positions of leadership.

The growth of additional state agencies and commissions with important effects on postsecondary education is clearly shown in Joseph Boyd's analysis of state scholarship commissions. In the past 2 decades state financial aid programs have increased dramatically, with 22 states now providing funds for this purpose, close to \$300,000,000. Some of these state financial aid programs are a part of the responsibility of state boards or commissions of higher education. However, approximately half of the state financial aid programs are administered by separate legislatively empowered commissions. In states with this pattern, there is critical need for cooperative effort in planning data information systems, analyzing the funding patterns for support of postsecondary education, and their effects on student flow to different types of institutions. Because of the critical problems to be faced in the funding of postsecondary education during the 1970s, cooperation between state scholarship commissions and coordinating or governing boards will be increasingly critical.

Finally, Charles R. Klasson,⁶ stressing the economic base for planning statewide systems, describes the factors which appear to be leading inevitably to newer and more comprehensive state systems at a time when higher education is moving lower on the national and state priority list and the clientele are becoming more diversified. Current quasimonopolistic control systems will be under enormous pressure and will be forced to change. Mandatory reporting systems will be established in order to develop common bases for evaluating institutional successes and failures (since he originally prepared the paper, Section 1206 of the Education Amendments of 1972 has been put into law, providing for an institution to supply "such cost of education data as may be in its possession" and that "the U.S. Commissioner of Education may require these data as a condition of eligibility" of any institution of higher education for either institutional aid or student aid). Klasson stresses the fact that past planning practices have been inadequate to meet the demands of consumers and of funding agencies. Finally, he warns that the results of data systems and of careful planning must be recognizable results. There is danger those in higher education "may be mistaking action for accomplishment." Thus, planning including evaluation of results is the absolutely basic necessity for postsecondary education in the 1970s.

DEVELOPMENT AND IMPLEMENTATION OF A STATE HIGHER EDUCATION PLAN

E. T. Dunlap
Chancellor

Oklahoma State Regents for Higher Education .

Statewide planning in higher education is still a relatively new phenomenon, having developed in the late fifties and early sixties as an emergency response to the threatened inundation of colleges and universities by the “war babies” of the World War II veterans. Had the challenge to the public system not been of an emergency nature, it is doubtful if the present concept of state-level planning could have emerged, given the cultural antipathy which most Americans have felt for planning as a state activity. In the past, mention of state-level planning probably conjured up visions on the part of many Americans of Bolshevism, Maoism, or of Huxley’s *Brave New World*. It is thus no wonder that the concept of state planning in higher education has been slow in gaining respect and recognition.

At this point in time, it is easy to forget the challenge which higher education has met and overcome in the past few decades. It took this nation 300 years after the founding of Harvard College to enroll as many as one million students in a single year. That event happened in 1930. It took only 16 years to add the second million, which took place in 1946. The third million was added in 11 years, in 1957. The fourth million took 5 years, in 1962. The fifth million was added in 2 years, in 1964. The sixth, seventh, and eighth millions took only 2 years each, so that by 1970 a total of more than eight million students was on the campuses of our colleges and universities. Without the systematic efforts of national and state planning agencies working together during the sixties, it is doubtful whether higher education could have doubled its capacity to meet the demands placed upon it in that decade.

The single most significant factor associated with the growth of higher education in recent decades has been the absolute size and the sky-rocketing rate of the increase. The second most significant factor has been the changing character of the student body from private to public. Between 1960 and 1970, the number of students in colleges and universities went up 120%, increasing from 3.8 million to 8.4 million, a rate of increase-

- nine times the rate of increase in population,
- five times the rate of increase in elementary and secondary enrollments, and
- two times the rate of increase in the number of high school graduates.

At the same time, the public-private mix was undergoing a rapid change. For example, in 1950 the public-private ratio was 50:50. In 1960, the figure was roughly 60:40. By 1970, the ratio was 75:25, public over private--and still moving upward.

Prior to World War II, there was little impetus for comprehensive state planning in higher education. As pointed out previously, most students were enrolled in private institutions, total public enrollments were small, and public expenditures for higher education were relatively small in comparison with other state functions such as highways, elementary and secondary education, and public welfare. According to June O'Neill, total capital and current expenditures of colleges and universities made up less than one-half of 1% of the Gross National Product in 1930.¹ At that time, nearly two-thirds of all college students were enrolled in the private sector. By 1967, total capital and current expenditures of colleges and universities made up 2% of the Gross National Product, at which time nearly three-fourths of all students were in the public sector.²

These data in combination help to explain the recent interest on the part of governors and state legislatures in public higher education generally, and in rational planning for public higher education in particular. With the total costs of student instruction increasing twentyfold between 1930 and 1967 (from \$413 million to \$8,074 million) and with total higher education

¹June O'Neill, *Resource Use in Higher Education: Trends in Output and Inputs, 1930-1967* (Berkeley, Calif.: Carnegie Commission on Higher Education, 1971), p. 36.

²Ibid.

expenditures rising at a rate more than three times that of the increase in the Gross National Product,³ it is not surprising that accountability in higher education has come to the forefront in recent years. This situation has set the stage for greater acceptance on the part of the public and institutions alike of the necessity for rational planning at the state level in higher education.

Requirements for Successful Planning

Historically, most state-level planning has been carried out under the auspices of coordinating or governing boards created expressly for this purpose, or with planning as a major responsibility. However, the mere existence of a coordinating board or planning agency does not guarantee that good planning will take place. Oklahoma, my own state, created the first coordinating board in 1941; yet it was not until 20 years later that any substantive higher education planning occurred. Lyman Glenny's landmark study of 1959 revealed that about one-third of the states at that time had developed state coordinating mechanisms, of which planning was cited as one of the major functions in each.⁴ To that date, however, little of consequence had taken place in connection with planning, outside of a few states such as California, Michigan, and Florida.

By 1969, some 45 states had developed a coordinating or governing mechanism with some responsibility for statewide planning,⁵ and by 1971, all but two states had created such agencies; yet a recent study by Palola, Lehmann, and Blischke revealed serious weaknesses in the organization and approach of most state-level agencies with regard to the development of a viable planning function.⁶

A successful higher education plan cannot be developed *ex nihilo*; rather, certain basic structures and capabilities must be present or must be developed

³Ibid., p. 35.

⁴T. R. McConnell, "Foreword," in *Coordinating Higher Education for the '70's: Multi-campus and Statewide Guidelines for Practice*, Lyman A. Glenny, Robert O. Berdahl, Ernest G. Palola, and James G. Paltridge (Berkeley: University of California, Center for Research and Development in Higher Education, 1971), p. viii.

⁵"Statewide Coordinating Boards of Higher Education." *Compact* 3 (3) (June 1969), p. 8.

⁶Ernest G. Palola, Timothy Lehmann, and William R. Blischke, *Higher Education by Design: The Sociology of Planning* (Berkeley: University of California, Center for Research and Development in Higher Education, 1970).

as prerequisites to good planning. First and foremost, there must be an adequate legal structure for coordination, about which more will be said later. Second, the planning agency must employ competent administrative and research personnel. Third, there must be in existence certain basic historical data, not only with regard to higher education enrollments, degrees, finance, physical facilities and the like, but also state-level data dealing with vital statistics, population distribution, manpower, and economic status of the population. Fourth, there must be adequate involvement of people, institutions, and agencies in the development of higher education goals and in the legislation of the higher education plan. Fifth, the expertise of higher education consultants and agencies outside the state should be selectively utilized. Sixth, the plan which is legislated and adopted should be systematically communicated throughout the state. Seventh, there should be a plan and a timetable for implementation of the results. Eighth, the plan should be systematically evaluated and periodically updated.

Among the items cataloged above, the existence of an adequate legal structure at the state level is most vital to the development of a viable planning mechanism. It is necessary to invest the state planning agency or board with certain powers in order that it function successfully. In this regard, I am in full agreement with the position taken by Glenny and his colleagues in the report entitled *Coordinating Higher Education for the '70's*. I should like to quote from that study:

We recommend that the board have the following minimum powers . . . : (1) to engage in continuous planning, both long-range and short-range; (2) to acquire information from all postsecondary institutions and agencies through the establishment of statewide management and data systems; (3) to review and approve new and existing degree programs, new campuses, extension centers, departments and centers of all public institutions, and, where substantial state aid is given, of all private institutions; (4) to review and make recommendations on any and all facets of both operating and capital budgets and, when requested by state authorities, present a consolidated budget for the whole system; and (5) to administer directly or have under its coordinative powers all state scholarship and grant programs to students, grant programs to nonpublic institutions, and all state-administered federal grant and aid programs.⁷

The authors of that publication go on to say, "Undoubtedly some in higher education will resolutely oppose investing these powers in a coordinating board. But in our view, the choice today is not between strengthening the coordinating board or retaining the status quo. Rather, the choice is between creating an effective coordinating board with at least these powers or seeing

⁷McConnel; Glenny et al., p. 7.

public higher education ingested into the executive branch of state government."⁸ Whether or not higher education will be digested in as well as ingested into the state-level executive may I cannot say, but I am convinced that there will be coordination in higher education by some agency, either a neutral agency situated between government and higher education, or else a governmental agency pure and simple.

Elements of the Higher Education Plan

Assuming that the proper conditions exist for the development of a higher education plan, the next step is to consider the elements or factors to be included in the plan. Most plans address themselves to at least four basic elements: aspirations of students and the people for higher education services; institutional programs and services available to meet these aspirations; resources available to carry out the requisite programs and services; and the organization and structure for coordination and governance of the system. Although not all state planning studies deal with these items in the same format as set forth here, the items listed are common to most plans which have been published over the past decade.

A study by the Carnegie Commission on Higher Education identified four elements deemed essential to the development of an adequate state planning effort for postsecondary education. The Commission recommended that as a minimum, states should give attention to: (1) access to postsecondary education; (2) functions or roles of institutions; (3) provision for orderly growth (by type of institution, institutional size, new institutions, etc.); and (4) provision for articulation among the various elements of postsecondary education.⁹

Ernest Palola, who conducted a study on coordination and planning in four states (California, Florida, Illinois, and New York), identified six dimensions which form the basis for judging whether statewide planning is comprehensive or fragmented in a given state. Those dimensions are scope, priority, research, participants, implementation, and time span. A brief description of each dimension is presented below:

SCOPE—All major policies about statewide functions and activities for higher education are examined. In general, this includes education, facilities, and fiscal policies. More

⁸Ibid.

⁹Carnegie Commission on Higher Education, *The Capitol and the Campus: State Responsibility for Postsecondary Education* (Hightstown, N.J.: McGraw-Hill, 1971), p. 34.

specifically, in the education category, this involves the definition of goals in regard to the socio-cultural, economic, political, and psychological or humanistic aims of higher education. Also, the numbers and types of different institutions are established to meet the various educational goals identified.

PRIORITY—The statewide goals for higher education receive first priority, followed by decisions about facilities and finances. In other words, issues about public and educational policy are the first order of business.

RESEARCH—A continuous process of research occurs which goes beyond the routine studies normally conducted by institutional research offices and focuses on the key issues facing the state (e.g., manpower needs, economic resources, geographic distribution of campuses, lifelong learning, individualized education, new technologies, and institutional size).

PARTICIPANTS—Students, faculty, administrators, statewide coordinators, legislators, and governors all share responsibility for planning in higher education. Each group has a unique perspective, type of expertise, and particular contribution to make toward statewide planning. A variety of roles—initiator, reviewer, recommender, decision-maker, implementor, and evaluator—are played by the above groups at different times in the planning process.

IMPLEMENTATION—A time-table and general strategy are specified by which proposals will be put into action. Such a strategy considers vested interests within various parts of the statewide network.

TIME SPAN—Statewide plans contain proposals for three time periods: short-range (1-4 years), intermediate-range (5-25 years), and extended long-range (26-50 years). Planning which concentrates solely on one- or two-year periods overlooks important long-term questions. Similarly, planning focused on intermediate or extended long-range goals ignores more immediate and pressing needs.¹⁰

Organization of the Planning Effort

Because I have been fortunate enough to be involved in an ongoing higher education planning effort within one state for approximately a decade, it might be of interest and value to review the record to see how the State of Oklahoma has gone about the task of developing and carrying out a state-level plan for higher education. Oklahoma is not set forth as a model, but merely as a concrete example of what elements have been included within an ongoing higher education study, and what is currently happening with regard to planning and implementation of planning.

¹⁰Palola et al., pp. 10-11.

Like many states in the late fifties and early sixties, Oklahoma awoke to the fact that the "war babies" of World War II were almost upon the doorsteps of the colleges and universities. In 1961, the Twenty-Eighth Oklahoma Legislature in House Bill No. 553 acknowledged the situation in the following words:

[I]t is the conviction of the legislature that to meet the challenge of this new world in public higher education in Oklahoma, and in consideration of expanding enrollments which are expected to double by 1970 with the obvious need for additional facilities, additional instructional staff, discovery of new and improved techniques of instruction and research, studies of the Oklahoma State System of Higher Education in every area of its responsibility should be initiated and vigorously pursued.

The Constitution of the State of Oklahoma provides that the Oklahoma State Regents for Higher Education shall constitute the coordinating board of control of the State System. Among its duties is the compilation and analysis of information about higher education essential to statewide planning and coordination. Recognizing this, the Legislature further expressed itself to the effect that the State Regents could best make the study and appropriated funds for this purpose. The Regents met promptly to consider the Legislature's request and on July 31, 1961, authorized a higher education study and directed the Chancellor to proceed immediately to organize for its accomplishment.

One of the unique features of the Oklahoma plan was that it was not designed to be accomplished by an outside management firm or by outside consultants; rather, it was undertaken on a self-study basis, similar to the institutional self-study approach used by the North Central Association of Colleges and Secondary Schools. Dr. Norman Burns of the North Central Association served as general consultant to the self-study, and special consultants from outside the state were utilized as needed and appropriate. The staff of the Oklahoma State Regents for Higher Education served in the capacity of research staff to the self-study, assisted by an advisory steering committee of five presidents representing institutions in The Oklahoma State System of Higher Education and two presidents representing independent and municipal colleges and universities in Oklahoma.

In addition to the advisory steering committee, a primary advisory committee composed of presidents of the 18 institutions in The Oklahoma State System of Higher Education and five presidents representing independent and municipal colleges and universities in Oklahoma was structured to review materials coming out of the study and to make recommendations to the State Regents with regard to policy development and implementation.

In 1962, the State Regents got underway with the comprehensive study. From 1962 to 1966, a total of eight research reports was developed dealing in problem areas such as higher education faculty, student enrollments and projections, higher education budgeting and finance, physical facilities, medical education, higher education opportunities and needs, and goals for Oklahoma higher education. These studies involved literally hundreds of individuals—students, faculty, and administrators from higher education institutions, as well as governmental officials and citizens at large. In one study alone, *Goals for Oklahoma Higher Education*, a 600-member citizen group was utilized, together with a special 140-member citizen advisory committee on goals for Oklahoma higher education, several hundred faculty members in higher education, along with selected students and many governmental officials.

In May 1968 a report entitled *The Status and Direction of Oklahoma Higher Education* was published, whose purpose was to pull together the results of the previous eight studies which had been published and evaluate the progress made in implementing some 89 major recommendations for the improvement of Oklahoma higher education contained in those reports. Of the 89 recommendations, it was discovered that more than two-thirds had already been implemented in full or in part, and that some of the remaining one-third were expected to be implemented within the near future. It can thus be adjudged that higher education planning in Oklahoma for the decade of the sixties was a qualified success and accomplished most of its objectives.

The End of Planning

Although state-level planning is and must be a continuous process, there comes a time when the planning must stop long enough for a *plan* to be developed. Thus the most obvious product of planning is the plan itself. A series of discrete research reports such as that turned out in our state during the sixties does not constitute a plan; it only serves as background and data for the development of a plan. To be most effective, a plan must be rational, systematic, comprehensive, and definitive, things which a series of reports cannot be no matter how well conceived.

Finding itself sailing into the seventies with no rational plan for higher education other than the disjointed and unconnected recommendations made in a series of research reports designed to solve the problems of the sixties, Oklahoma set about in 1968 to develop a higher education plan. In that year, the Oklahoma Legislature called upon the State Regents in Senate Concurrent

Resolution No. 37 to initiate steps to review all phases of higher education "in order to make the most of resources available and to meet the needs of the State for higher education to the greatest degree possible."

In June of 1969, the State Regents approved a plan for a study of junior college needs and resources in Oklahoma. One month later, they commissioned a study on the role and scope of institutions, whereby a more rational division of labor among the various colleges might be effected for the decade of the seventies.

In February of 1970, results from the two higher education studies, *The Role and Scope of Oklahoma Higher Education* and *Junior College Education in Oklahoma*, were presented to the Oklahoma State Regents for Higher Education in manuscript form, and the State Regents adopted the contents of the manuscripts as guidelines for decision making regarding the further improvement of Oklahoma higher education in the decade of the 1970s.

Simultaneously with the adoption of the two research manuscripts, the State Regents directed the Chancellor and the staff to take the following steps concerning implementation of the research findings:

1. Publish the reports in printed form and distribute them widely to members of the Oklahoma Legislature, the Governor, institutional administrators, members of the Oklahoma Commission on Education and all other individuals interested in and having a responsibility for planning, development and operation of higher education programs in Oklahoma.
2. Schedule and carry out information forums designed to provide the opportunity for fully communicating the contents of these reports to groups and individuals, and for receiving the comments and suggestions of these groups and individuals for possible inclusion in a "master plan" for Oklahoma higher education.
3. Prepare and publish a state plan for higher education designed for the decade of the 1970's containing specific recommendations, policies and procedures, utilizing the results of this research and suggestions growing out of the public forums.
4. Guidelines, recommendations and policies contained in the state plan should then be implemented by the State Regents, institutions, governing boards, the Governor, the State Legislature, and the people.¹¹

In the spring and summer of 1970, a series of forums was held for the purpose of presenting the results of the two studies to higher education

¹¹Dan S. Hobbs, *Oklahoma Higher Education: A State Plan for the 1970's* (Oklahoma City: Oklahoma State Regents for Higher Education, 1971), p. 34.

committees of the Legislature, the Governor, the Oklahoma Commission on Education, faculty members, students and alumni of institutions in The Oklahoma State System of Higher Education, and various civic groups, including the Oklahoma City Chamber of Commerce Board of Directors and community leaders in cities such as Ardmore, Tulsa, and Bartlesville.

In all, more than a dozen forums were held in various geographic regions of Oklahoma, presided over by members of the Oklahoma State Regents for Higher Education, and participated in by higher education consultants from outside the state. During and after the forums, the State Regents invited interested participants to make known their suggestions and ideas concerning the direction that Oklahoma higher education should take during the decade of the 1970s. Suggestions received as an outgrowth of the forums were systematically collected and reviewed and were extremely helpful to the consultants and the State Regents' staff in the development of the state plan.

The Outcomes of Planning

In July of 1971, the State Regents published the results of their planning study, a document entitled *Oklahoma Higher Education: A Plan for the 70's*. The plan contains some 34 policy guidelines and recommendations for the seventies, dealing with issues and elements such as institutional functions and programs, institutional size and composition, organization and structure of higher education, finance and facilities, articulation of programs and institutions, student assistance, health-related education, and other special programs and problems.

The plan, in accordance with the authoritative literature on planning previously cited, provides for a more rational division of labor among institutions in both the public and private sectors of higher education than at present. In order to effect this division of labor, the plan calls for freezing the number of freshman students at the two large state universities at current levels, thereby releasing those institutions to devote a greater portion of their energies to the functions of graduate and professional education, research, and public service.

The Role of the Universities

Whereas the two state universities historically have enrolled half of all students in the public sector, with the other twenty-odd institutions sharing the other half, the plan for the future is to effect a more even distribution among the three types of institutions.

By 1980, the state universities' share of the total student body should be down to about 40%, with the state 4-year colleges' share at about the same level. The public 2-year colleges should garner about 20% of the market by the end of the decade. This would mean that the public junior colleges would enroll about 40% of the students at the freshman and sophomore level by 1980. The state universities would enroll approximately 30% of the freshmen and sophomores, with the state colleges and senior colleges sharing the remainder. This pattern of distribution would create a more equal balance of lower-division students than at present.

This restructured approach will require the assumption of greater responsibility for the enrollment of increased numbers of freshmen on the part of the other public and private colleges, particularly the 2-year state and community colleges, where the greatest enrollment growth is occurring. In the 1971 fall semester, enrollment at public junior colleges increased 26%, as compared with increases of 2% and 4% respectively, at state universities and state senior colleges.

The Role of the Junior Colleges

Provided that the division of labor envisioned in the Regents' higher education plan is carried out, the years ahead will see the public junior colleges assume an increasingly greater share of the higher education load. At the national level, junior colleges have been growing at an astounding rate, increasing from about 600,000 students in 1960 to more than 2.2 million in 1970, a percentage gain of 266% for the decade. Junior college students now constitute the majority of all freshmen and sophomores enrolled in American higher education.

In Oklahoma, the growth of junior colleges has been somewhat slower, but still significant. Whereas the public colleges as a whole grew 106% during the decade of the sixties, enrollments in the public junior colleges expanded 188%. There are now 14 public junior colleges, 8 of them fully state-supported and controlled, and 6 controlled by local boards but partially state-supported. As these institutions take on additional technical and occupational programs to meet the needs of the state for technical workers, they can be expected to play an increasingly active role in the educational marketplace.

The Role of the 4-Year Colleges

The plan also recommends that the state 4-year colleges place greater relative emphasis on programs of education and research at the upper-division and

master's levels, and diversify their baccalaureate programs to provide more opportunity for students in fields not related to teacher education. Whereas Oklahoma's population currently comprises about 1.25% of the national population, the state's colleges and universities currently award 2.5% of the nation's degrees in teacher education. Since Oklahoma produces twice as many teachers per capita than the average state, Oklahoma institutions must begin to move their production away from teacher education toward those fields in which opportunities are more promising.

Other Recommendations

Critics of higher education at the national level have recently accused colleges and universities of lacking clarity of institutional purpose, and of having lost the confidence of the public. The Regents' plan challenges institutions in the State System to reassess their own goals and redesign their priorities to meet the rapidly changing needs of Oklahoma and the nation in the upcoming decade. In developing their campus master plans, institutions are urged to incorporate the use of the new technology and consider innovative educational practices such as cooperative education, joint degree programs, year-round educational calendars, televised instruction and other such promising approaches.

The Regents also recommend that the organization for governmental control of Oklahoma's public higher education be restructured to provide for a separate governing board for each institution. This new structure would contribute toward greater institutional diversity and allow each college and university to make a unique contribution to the achievement of the state's higher education goals. It would also help to reverse the trend toward centralization of government in higher education and would involve a greater number of local citizens in the government of the state's public colleges and universities.

At present, there are 20 state-supported colleges and universities in the State System. These institutions are now governed by 10 boards of regents. Eight institutions operate under their own individual governing boards, 6 additional institutions are governed by the Board of Regents for Oklahoma Colleges, and the remaining 6 institutions are under the governmental control of the Board of Regents for Oklahoma Agricultural and Mechanical Colleges.

In recommending a change in the current structure for governance, the State Regents point out that it is difficult, if not impossible, for a governing board composed of lay members to give proper attention to more than one

institution. The Regents maintain that a lay board which meets only 1 or 2 days per month has difficulty in finding time to study and listen to the problems of several institutions. Such a board may wind up taking action on the basis of insufficient information and analysis, particularly when there is no professional staff to help compile and organize the material and problems to be considered.

Outlook for the Seventies

The challenges which face higher education planners in the seventies differ markedly from those of the sixties, when the problems were chiefly quantitative in nature. A few years ago, planning consisted chiefly in spending wisely the ever-increasing funds to construct more and more classrooms, laboratories, parking lots, dormitories, and the like, and in trying to hire enough faculty members and develop enough new educational programs to meet the demands brought about by spiraling numbers of students. The accent during the sixties was upon growth, and it was difficult during most of that decade to make a poor judgment. In the event that an institution overbuilt, overbought, or overstaffed, next year's growth would make that decision look like foresight rather than poor judgment. The long-range picture during the sixties was rosy, and the light was green.

During the seventies, the outlook is much more somber. True, the growth is continuing, but at a slower pace. Also, the money is tight and getting tighter. The long-range outlook for students is upward through 1978 or '79, then static and perhaps downward during the decade of the eighties. Thus, the chief problem of the seventies will be to avoid building excess capacity into the system in order to ameliorate the more drastic effects of the expected downturn in the latter half of the decade.

The public is increasingly demanding greater accountability from higher education. In most profit-making enterprises, increased input and greater size generally result in greater productivity. In higher education, however, virtually no increases have occurred because of increased numbers of students and resources. A recent study done for the Carnegie Commission found that for colleges and universities there is "a more or less proportionate increase of inputs and outputs."^{1 2}

^{1 2} Earl F. Cheit, *The New Depression in Higher Education: A Study of Financial Conditions at 41 Colleges and Universities*, sponsored by the Carnegie Commission on Higher Education and the Ford Foundation (New York: McGraw-Hill, 1971), p. 9.

If higher education is to regain the confidence of the public which was forfeited during the years leading up to the spring of 1970, then ways must be found to make more efficient use of resources through new organizational structures, new calendar approaches, and employment of new technologies such as computers, closed-circuit television, and the like. In addition, ways must be found to meet the burgeoning demand for continuing adult education and career education. During the seventies, there also will be need for greater cooperation between and among institutions in the structuring of joint courses and programs, the sharing of resources such as libraries and computers, and joint planning approaches.

It is already apparent that many of the old structures and strictures are falling away, rendering institutions and systems more capable of responding to the public need. New degree approaches such as the University Without Walls, the Open University of Japan and Great Britain, and the other so-called "External Degrees" are beginning to break down many of the old notions about standards, evaluation, control of curricula, and the like. New advanced standing tests such as the College Level Examination Program battery are beginning to have an impact on advanced placement and the transferability of credit among institutions, not to mention their impact on helping students to gain college credit for individualized learning at home, in the military, or on the job. Also, the new work-study programs and programs of cooperative education further enhance the possibility that students will in the future be able to get credit for what they know, regardless of where or how they have learned it.

One final prediction can be put forward based on the recent passage of the Conference Report of S.659 by the United States Congress. The national government has once and for all entered the higher education arena on a comprehensive and meaningful level, and the impact of that decision will have far-reaching consequences. Two things are now assured: both the national and state governments will be increasingly involved in higher education planning during the seventies as a consequence, higher education should be more responsive and react much more like a national system than ever before. What long-term effects these trends will have are not yet predictable, but it is quite discernible that they will be substantial.

NEAR, SHORT- AND LONG-TERM PLANNING: EXERCISES OF REASON AND NECESSITY

Robert B. Mautz
Chancellor
State University System of Florida

The word “planning” has approached the exalted status of a cliché. As with the request for a “study” the concept has become an escape mechanism to postpone the hard reality of an immediate difficult decision and has hence become a refuge for some who would avoid action. To fail to plan, however, is in itself a form of planning in that our future is determined by default or shaped by accommodating the conflicting forces of the moment. An action-reaction pattern frequently results. Perhaps in no arena is this pattern better illustrated than in the reaction to the realization that we were heedlessly consuming our environment. Our current zeal to protect the environment regardless of cost on the human scale is an example of over reaction resulting from lack of initial planning.

Nature and politicians abhor a vacuum. Lack of decision creates a vacuum and tends to invite intervention and decision making by opportunists, those concerned only with short-range advantages and those who ignore long-term consequences. Hence, avoiding a decision is a decision and nonplanning does not prevent change but fails to influence intelligently the forces of change. My own preference is to attempt to diminish the action-reaction syndrome by plotting a course and attempting to steer that course. Anyone who has hung over the fantail watching the wake of a ship, flown an airplane, or even watched the car ahead on the highway weave from white line to shoulder and back to white line is aware that the most carefully plotted course cannot be precisely followed, but a trip charted on a map before departure has a better chance of being concluded within the constraints of budget and time than the trip of the Boston lady who was going to drive to San Francisco by way of

Lexington and Concord. Lack of planning is akin to driving a car forward while looking through the rearview mirror at where you have been.

Aim of Planning: Increase Likelihood of Achievement

No course can be charted without some consideration of the obstacles which must be encountered or the human and other forces which will affect the execution of the plan. It would be foolhardy to plan to sail a ship across the Sahara Desert, to drive an automobile across the Atlantic Ocean, or to send a message to the moon by a homing pigeon. It is difficult to arrive in California if someone else is driving and plans to go to Montana. That one cannot foresee all the hazards of a voyage does not argue against planning per se. The aim of planning is to increase the likelihood of achievement. While any plan can take into account the possibility of a rainstorm or two on the road between Boston and San Francisco, a tornado is less likely and few would foresee a meteorite falling upon and destroying the bridge across the Mississippi River. Even if one can conceive the latter, no plan should take it into account. Finally, by way of preliminary remarks, it is obvious that planning should be towards a definite goal. The purpose of planning is to achieve an agreed objective. The more abstract the statement of the goal, the easier agreement can be reached and the more difficult planning becomes. It is easier to agree to take a trip out West or to Europe than it is to agree to spend one-tenth of the trip in Moose Head, Wyoming, or 2 days in Rome as opposed to 3 days in Paris.

The first points I wish to make then are simply that one cannot avoid planning, that a carefully considered plan is more likely to lead to a desired goal, that planning must take into account the forces which will impinge upon and vitally affect the execution of the plan, and that planning is towards an agreed end. As an ancillary comment to the principal thrust of planning, it is desirable to build into the plan a control mechanism to insure its execution.

Having painted on a large canvas with a broad brush by affirming my faith in the desirability of positive planning and outlining the rudiments of the process, I would like to relate the case history of action on this faith and thereby paint in the details and subprinciples. From this point forward, therefore, I shall talk about some of the highlights in the history of planning in the State University System of Florida. In the process I hope an implicit point becomes manifest, namely that new technology calls for help from a new breed of technician who deals comfortably in the sophisticated language of modeling stemming from machine assimilation of huge masses of

quantified facts. I add hastily that the new breed should have a strain of practicality so as not to lose sight of human factors, time-tested fundamentals, and simple theories.

The first effort at planning in the State University System was by my predecessor who lacked the statutory authority which was subsequently given to the Board of Regents as the governing board of the State University System. In the absence of authority his attempt at planning was democratic in the extreme. He prepared a plan which outlined the role and scope of each university and set forth criteria for establishing new universities. He submitted this document to each university president and, in meetings of the presidents, sought to obtain agreement as to the plan. Under this procedure the planning committee was composed of the presidents of the universities. The result was a plan which was never approved and with respect to which there was no agreement even though it provided the best of all possible worlds for each member of the planning committee. Each president sought to maximize the future role of his university. At that time the number and geographical distribution of the members of the governing Board of the State University System coincided with the number and geographical distribution of the universities. Each president sought support for his point of view from the Board member who lived in the geographical area in which his university was located. Thus, the Board member from city "x" was courted by the president of the nearby university. The dreams of the president for a "Harvard of the South" were laid out and the Board member was pledged to assure that the master plan would enable that dream to come true. The result, in effect, was that each university was free to pursue its own goals and the plan which was not approved was a "no plan."

I assumed my office shortly after statutory strengthening of it as well as the Board of Regents for which it is the executive arm. A legislative mandate compelled the opening of two new universities and a large continuing education center. There were as many concepts as to the kind of new universities we should open and the nature of the continuing education center as there were citizens of Florida. The views ranged from those of some presidents of existing universities that the universities should not open at all, or if opened, should be branches of their own universities, through those who visualized the universities as modern 4-year liberal arts colleges, to those who viewed the universities as potential M.I.T.s and Harvards. To appoint a president, to abandon responsibility for charting his course, to expose him to the pressures which a central office is better equipped to buffer, and to permit further and permanent fracturing of the State University System was

to my view contrary to the purpose of my office and an abdication of responsibility. I therefore gathered our staff and began to plan.

Planning of New Universities Done In-House

The planning of the two new universities was a first priority and was done entirely in-house. Our efforts resulted in two broad blueprints which had three basic components. *First, each plan set out a role for the new institutions.* That role was basically one of an urban university serving its local community. In addition, each university followed a pattern established earlier by building on existing 2-year community colleges in the area. Competition with and duplication of the efforts of those community colleges was avoided by permitting the universities to enroll only students who had completed 2 years of college. Programs were specified in broad outline and included heavy emphasis on technologically oriented career degrees. Such programs included hotel and restaurant management, criminal justice, social welfare, and similar skill-oriented studies, the graduates of which would be in demand in the urban areas. Dedication to this goal led to emphasis upon nontraditional studies and one of the universities will administer the external degree program of the State University System. *Second, the plans contained demographic studies from which enrollments were predicted.* The cost of the new universities both in terms of operation and physical facilities was estimated for each year of the 10 years succeeding the date of the planning document. *Finally, a timetable was established.* These simple plans were presented to the governing Board which, after lengthy informal sessions, approved them. The Board at the same time indicated its desire that further planning for the system be undertaken. Our planning documents were the basis for recruiting new presidents and commitment to the stated broad goals was a condition of employment. A control mechanism was retained in our office. Subsequent detailed planning documents for each university were built upon the skeleton those plans established. At the present time we are adhering to our planned programs, timetables, and cost estimates. I anticipate our demographic predictions will prove to be accurate.

That illustration is an example of "easy" planning. An idea was conceived, tested through study, put on paper, approved, and executed. Institutions were built around that idea with the clear understanding on the part of all concerned that the planning document was also the governing document. Ultimate control in terms of allocation of resources and approval of programs and degrees was retained in the State University System office. In most instances life is not that simple.

Master Plan Established

A second example of planning is the establishment of a Master Plan for the State University System of Florida. The addition of two new universities brought to nine the total number of universities in the State University System. If we were not to mindlessly reproduce our existing universities and if we were to attempt to control the aspirations of each university to be a Harvard, it was essential that such a plan be established.

The first decision was the time span for which we would plan. A period of a decade with an annual update feature was finally fixed. Ten years was determined to be a minimum in view of the lead time required to establish and implement programs and to provide physical facilities. The longer the period of the execution of the plan, the greater the likelihood of error in anticipating factors to which any plan must be responsive.

The second decision area was with respect to methodology. We determined to build the plan with our staff. Parts of the plan were to be liaised with individual university representatives. Other portions were to be written in collaboration with committees consisting of representatives of all nine universities. Some other portions were to be handled entirely in-house. Decisions with respect to the components to be submitted for approval to the various groups were obviously vital to the success of this strategy.

Finally, and most importantly, we decided to make certain assumptions with respect to a host of factors such as enrollments which would not disturb existing expectations but the results of which would enable us to subsequently reexamine the assumptions and move to change policy to achieve stated goals. The concept of an annual update rendered this strategy feasible. Members of our Board were kept informed of developments and contributed to them.

Price Tag: Theory Related to Reality

The result of a frenzied 8 months was the *Comprehensive Development Plan of the State University System of Florida (CODE)*. Like many master plans, CODE attempted to sketch the schematics for future growth and change. It attempted to do so in specific language using quantitative terms whenever possible. It spelled out assumptions, projected growth on the basis of those assumptions, assigned missions to the various components, set forth both explicitly and implicitly certain restrictions and prohibitions, and provided a

skeleton which would be fleshed out in subsequent detailed planning documents. In none of these aspects was it unique from other master plans. It contained a number of important items, however, which made of the plan something more than a document to be filed and subsequently ignored by busy presidents or operating personnel. It put a price tag upon the execution of the plan and its components. This dramatic and effective relation of theory to reality caused widespread examination and discussion of the assumptions and resulted in modification of some.

Plan Would Be an Operational Guide

The second significant feature was built-in control mechanisms which assured that the plan would be an operational guide. A statewide management information system was to be inaugurated which would be the foundation for the establishment of a mechanism of allocation of resources. Resources were to be allocated to achieve and implement the goals of CODE. In addition, program control was lodged in a central office to insure that programs would not be authorized if contrary to the role and scope of the institution or if unnecessary from the standpoint of the state. The control mechanisms were interwoven with a fundamental assumption that an effective plan must provide that everyone can aspire to be a first class citizen but the rate of growth to realize that aspiration must be monitored by a central office. That office balances the needs of the state as a whole against the needs of the university and protects against growth when such growth is not warranted or represents duplication of costly programs. Criteria for adding academic programs were set forth in both qualitative and quantitative terms. Forms set forth in appendices assure standardization of applications for permission to proceed. The determination of criteria satisfaction resides in the same central office which is responsible for the allocation of resources.

The technique of implementing a grand design involving the basic components of a large system and obtaining support from the various groups who eventually influence a decision is a saga in itself. I hinted at the saga earlier; suffice it to say that the organizational determinations as to the degree of involvement were crucial to the ultimate approval and subsequent movement towards our goals. Both the growth of CODE and support for it were exciting to observe. Presidents and Regents moved from a parochial point of view to the broader concept of a system. Indeed, the Board provided leadership and sympathetic support internally and externally. The ultimate approval of the plan was probably an affirmation of the phrase made popular during the American Revolutionary days that "United we stand, divided we fall."

Question of Implementation

Following approval of the plan, the question of implementation loomed large. The most benevolent tyranny ever devised is still tyranny and doomed to failure. A successful and happy trip to California is more likely to occur if people want to go than if they are ordered to go. Fortunately, a system of governance existed involving councils composed of likes from each of the nine universities such as Vice Presidents for Academic Affairs, Vice Presidents for Administrative Affairs, and Presidents. Each council was chaired by a representative from my office. These councils were invited to be advisory on aspects of implementation of CODE and became deeply involved in our efforts. They helped shape details of implementation of the approved plan. Thus, the pitfalls of a bureaucracy blindly implementing a concept without feedback or participation by those affected by the implementation was avoided. We believe we are passengers in a car whose trip has been jointly planned. We are in agreement upon the destination, the route, and the price of the trip.

Our plan encompasses a 6-year forecast of both operation and construction budgets. One day after working with the 6-year construction budget, I drove to the campus of one of the universities located in the same town as our office. The ordeal of finding a place to park caused me to reflect upon our building budgets. Even with my privileged status, I had trouble finding a parking space. If the word is strong enough, it can be said I mentally "chastised" my precursors. The lack of foresight in planning the campus was borne home with irrefutable and irritating force. The horrible realization, that in requesting building monies on the basis of only a 10-year planning document I was committing future generations without adequate thought to the problems they would be facing, came to me about 5 minutes before I finally parked illegally. Monetary requests for buildings sent to the legislature in October 1972 will not result in a building ready for occupancy until September 1975 at the earliest. The lag between the request for funds and the occupancy of the building is filled with programs, schematics, preliminary plans, working drawings, bids, and construction. Assuming an annual update of CODE, a building completed in 1976 would be ready for occupancy only 5 years before the end of the planning period which had brought it into being. On the other hand it would be occupied for an incredible minimum of 45 long years for which there had been no planning.

Looking to Year 2000

This realization led to a determination to embark on bringing into being CODE TWO THOUSAND designed as a plan to plot our path through the year 2000. Some of this determination and the overall conclusion stemmed in part from expressions of concern from our Board of Regents. I invited members of the staff to join me in some brainstorming. In the first meeting, approximately 5 of us began to discuss how to embark on such planning and some of the factors we would take into account. The next meeting was attended by possibly 12 people. Almost every staff member attended the third meeting to at least listen, if not participate. Rarely have I engaged in anything so fascinating yet so frustrating. Entirely new horizons were opened. What would be the function of education? What kind of society would help shape our destiny? Who would be our clientele and for what purpose would they seek us out? Would the techniques of delivery change? Would the growth which had marked the past continue? Would the structure change?

To my surprise we found very little literature in the way of long-range predictions other than that of the science fiction type. Perhaps no one wished to expose himself to even a tentative commitment covering that span of time. The lessons of past mistakes in predicting the future may render timorous even the brave. In the simple matter of techniques of delivery, for example, it is possible to go to the literature of the thirties and read of the changes which it was visualized would be brought about by sound movies. By the early fifties television was the instrument of change in our universities, and in the early sixties teaching machines and the computer were thought of as substitutes for faculty members. The deeper we delved into the past inaccurate predictions of present day situations, the deeper became our debate as to the shape of the future and the more outlines we destroyed. We were finally thrown into thinking in terms of multiple probabilities and broad parameters of such probabilities.

At this point our sessions on CODE TWO THOUSAND have stopped. They progressed to the point at which we had an outline of considerations which were fundamental to a plan looking 30 years to the future. It is a document of about 10 pages. The sessions on CODE TWO THOUSAND are only temporarily in abeyance and will be resumed in fall 1972.

The fundamentals which derive from this outline are not different from those which I set forth in the beginning of these remarks. It soon became evident that rigidity and final commitment were pitfalls which present action should avoid. Fundamentals acquire greater significance as one gazes farther into the

future. For example, if the method of delivery is debated, the issue becomes less complex and more simple than might be imagined. It is possible to bring education to students or bring students to education, but the two must meet. Education can be delivered to students through a variety of devices. Some are currently impractical in terms of cost and some are impractical in terms of acceptability. Nevertheless, the likelihood of education being brought to individuals in their homes or in small centers within commuting distance of their homes is greater than that present day campuses will continue to expand on the scale of the past. On the other hand, some facilities such as laboratories cannot be scattered indiscriminately about the landscape nor can all forms of teaching be brought to individuals. In addition, aggregations of individuals have some advantages. Therefore one would expect campuses to continue to exist and continue to grow. Individuals must continue to be brought to them for some functions. Movement on the campuses must occur. These simple statements lead to certain consequences in planning. Since decisions must be made, those consequences become quite specific. These fundamental concepts of delivery forged in our think sessions are already bringing dividends. Incomplete as they are, they add a new dimension and guide decision makers to better current decisions about location and kinds of buildings. The specifics of a long-range plan are likely to be more general than those of a 10-year plan but will function as guides, as warning flags to current action. Trends and biological and cultural patterns help us in our contemplation of the distant future.

CODE TWO THOUSAND is a response to the basic demand that man exercise his intellect to think constructively about the future so that he might maximize the utilization of his limited time and earth's limited resources. As I consider our work on **CODE TWO THOUSAND**, I conclude it is more imperative that we think in longer time spans than a decade. I have long been intrigued by the report of a faculty committee in humanities at Yale charged with determining criteria for promotion. In discussing the necessity of coming to grips with the definition of good teaching, the committee report announced that the task was difficult, that people would disagree with the conclusions, and that the conclusions were less than perfect. All of this, the report continued, constituted no excuse for not undertaking the task and bringing it to a conclusion. That committee met a challenge. That a task is difficult, the conclusions not precise, or the results are unacceptable to some is not an excuse for failure to undertake it. Indeed, the task of long-range planning is almost mandatory to narrow the possibility of a lack of a rational progression. Moreover, the intellectual exercise it represents is not only challenging but exhilarating.

In the past we have tended to judge higher education from a point of view internal to higher education. The state of health of institutions of higher education has been determined as the sum of the states of health of the faculty and the administration. There are other important points of view as we learned from the waves of student discontent in the mid-sixties followed by the disenchantment of that other consumer, the public. That state of health has not only been internally judged, it has, except for great bursts such as the land grant act, been the result of a policy of drift. We must labor to correct this and in so doing address our planning not to the short-term question of our current merit, but to the long-term inquiry of future probable merit in terms of achieving global societal goals, of helping man to realize the potential which justifies the addition of reason to the arsenal of talent which God has given to all creatures.

ENCOURAGING INNOVATION THROUGH LONG-RANGE PLANNING

Ernest L. Boyer
Chancellor
State University of New York

The title of these remarks might easily have been somewhat different.

For example, we might have called it “The Need to *Tie Innovation to Long-Range Planning*.” Planning is a process that seeks to make careful judgments about the future and to indicate strategies to meet emerging needs. But the exercise is wasted if we fail to understand that, logically and necessarily, planning should lead to changes in the way we carry on our work.

To change education is not to break wholly with the past or to be inconsistent about our enterprise. John C. Calhoun is reported to have said that “Inconsistency is a change in position when there is no circumstance to warrant it.” One of the results of good planning is a clearer view of changing circumstances. To make changes based on these new circumstances, therefore, is not a sign of inconsistency but a natural outcome of intelligent foresight. Innovation is, in short, a logical sequence to long-range planning.

Or we might have titled the remarks, “The Obligation to Delay Innovation Until *After* Long-Range Planning.” There are some professional innovators who wander about like Johnny Appleseed spreading new notions not based on clear analysis but on passing fads. All too often in education the notions are adopted, only to wither like plants without deep roots as soon as the white heat of criticism is turned on. Therefore, we need to delay educational innovations until we have undertaken the hard, crisp analysis that disciplined planning can provide.

The proper sequence, then, for innovation is as follows: First, we begin with an *analysis* of the present scene, examining the changes taking place in the context of our work and forecasting the trends that are emerging. Next, we make certain *assumptions* about the impact these changes will have upon the process of higher learning. This leads then to *action*—or innovation if you like—which links our moves with contextual trends and helps reduce the shock from “future shock.” After all, if future conditions are with us now in embryonic form, it follows that program changes should also begin now if they are to match the emerging new conditions.

I would like to illustrate how this process of analysis, assumption, and action can be carried out by describing several case studies drawn from my own recent experience.

At the State University of New York, we are now preparing a 10-year Master Plan. During the process, we soon developed the conviction that innovation was essential in order to serve the students and the state better in the years ahead. But, before we arrived at that conclusion, we looked at the shifting social scene and the characteristics of the emerging environment to make sure that any new programs proposed were rooted in facts and not faddism.

Population to Be Served Changing

The first analysis that has led to change relates to the population to be served. Historically, the typical life span has been divided into roughly four stages. First, there have been the first 4 years of happy play. Then there were 17 to 20 years of formal study. Following that came approximately 45 years of full-time work, and then 10 or 20 years of retirement.

This life pattern has one important ingredient: It defines education strictly as a pre-adult, pre-work ritual. This has had a persuasive impact on how we've organized our colleges and how we define the students to be served. As college catalogs make clear, higher education deals with the late adolescent person who is with us before he enters the “real” world of living and work. Accordingly, we have organized our colleges for the young as homes away from home. We've scheduled courses mainly Monday through Friday, originally 8 to 4 and, more recently, from 10 to 3, scheduling them at a time when they collided head-on with the world of work. The assumption was that our students had no other duties except full-time study to perform. And, we've scheduled long semesters expecting students to live with us for most of the year.

This collegiate schedule has meant that we frequently have excluded from our program, by the very format itself, all but the young and the fully leisured. As a result, our campuses have become a kind of youth ghetto, a place where those over 30 are identified as wanderers in a strange and foreign land.

As we looked at the social picture, however, higher education appeared to face a dramatically shifting scene and a changing demographic profile. According to U.S. Census data, by 1980 the number of people over 60 years of age in the United States will have increased 34.8% and the number of those between 50 to 60 years old 17%. At the same time, there will be a continued decline in birthrate, so that the very clientele which historically we have judged to be ours—those from 17 to 23—will have declined in number by 2%. Thus, as people have fewer children and as people live longer, we are facing a spectrum of life that will shift increasingly toward the upper levels.

Work Pattern Changing

Also, our examinations disclosed that the work pattern is changing. No longer are the 45 years between college and retirement viewed as devoted wholly to the business of earning bread from morning to sundown. In 1900, the average American adult spent 61.9 hours a week at work. By 1945, the average work week had been reduced to 43.4 hours a week. And in 1972, it has dropped to 37.5 hours per week. This has resulted in an increase of over 300 hours a year of leisure during the past 25 years for the average worker.

By probing future trends, we observed that there are other shifts occurring in the timing and scheduling of work. Repeatedly, there are reports of the 4-day work week, and there are even a few places that have moved toward the 3-day week. People are clustering their work time and discovering increasing blocks of leisure.

In the face of all this one begins to ask: What is to occur during this absence of work? Are we simply to assume that it will be filled by more television and beer? Or does it open up a remarkable new clientele for learning that the universities and colleges of the nation must somehow find a way to serve?

Then, of course, we added to this the trend of knowledge becoming obsolete faster each decade. In some areas of human endeavor, especially the sciences and technology, people's basic skills may be lost after only 5 years, and reeducation or retraining is necessary.

As we examined State University's operations, we noted that the student

clientele had already begun to reflect this shifting social scene. We have, for example, an ever-increasing percentage of students in the State University who are over 25 years old. Nationally, we found that, in 1960, there were 9.6 million people over 25 in adult education, while today, in just a little more than 10 years, the number has leaped ahead to 25 million.

Out of this analysis, a basic assumption gradually took shape. Looking ahead, we concluded that the college student population will have greater diversity in terms of age; and more flexible and life-long learning patterns will be demanded.

Master Plan Proposals

Given this analysis, and given this assumption, we moved into innovation. Let me list just a few of the proposals in our Master Plan.

In light of the shifting life style, we will encourage more deferred admissions after high school. Students will declare their intention to continue study after high school but will actually show up at the college a year or two later. The notion is that formal learning does not need to be pursued compulsively before one plunges into work and other life experiences.

We're also moving toward step-out arrangements which will allow students, after 2 years of college, to enter a work-study program and complete their baccalaureate in an arrangement that combines in a phased manner some kind of practical training and experience with further study.

We're considering giving the student not only the college diploma but possibly a certificate for continued learning. The idea is to spell out the arrangements by which the student intends to continue his study after college, working closely with a mentor.

We are thinking of more mid-career programs which will allow for weekend institutes, sunrise seminars, or university-in-the-factory programs which will devote 4 days to work and 1 day to study. We hope to alter our learning arrangements so that they will accommodate persons with increased leisure and accelerated needs for continual updating of knowledge.

Also, we're thinking of an increased emphasis on serving those who are retiring earlier and living longer. This is a period when a full flowering of learning and cultural development could emerge. As one example, we're thinking about some of our residence halls being adjusted as places for retirees to live.

And all of these innovations are rooted in some fundamental changes which already are very much a part of the shifting social scene.

Innovations in Location of Learning

Let me introduce yet another example. In our Master Plan we are also proposing innovations in relation to the location of learning, changing our own views of the college campus and where the students study. But again, we did not leap blindly into this innovation; we began by analyzing the changing circumstances of our time.

When most of our colleges were founded, higher education was intended chiefly for the privileged few. College life was 4 years long, almost invariably away from home and conducted entirely around one library and one faculty. But the conditions which in the past produced this fortress-like approach to higher learning have, to a considerable extent, vanished.

Today, our social conditions are marked not by limited knowledge but by immense reaches of knowledge which grow and change daily through easy travel, by vastly enhanced and even instant communications, and by techniques for the speedy retrieval and dissemination of information and ideas. Indeed, perhaps the most profound social change to have overtaken us is that advanced professional and technical skills have become vital to nearly every function in American life.

Changes of such magnitude challenge the notion that a college education must be limited to residence on a single campus. It seems clear that college-level learning during the next 10 years will occur at an increased number of places, and the campus will more and more become a base of operation rather than a place of confinement.

This assumption led us again to an innovation. We have started Empire State College in the State University of New York. This is an institution without a single campus, but one that has Learning Centers scattered about the state. Instead of building a whole new campus and pouring more concrete, we built upon the 70-plus existing campuses of the University, believing that increased flexibility in the place of study will be an absolute requirement in the future, and that increasing numbers of our students will not spend full-time residence on something called a college campus.

Planning, Reform Interlocked

I want to furnish one final example to illustrate how planning and reform are interlocked. In our Master Plan, we are planning to introduce innovations that relate to the length of college study. Once more, we look at this proposed change not as an end in itself but related closely to social changes in the context of our work.

Again, a glance at history is essential. We investigated the question of where the 4-year collegiate degree actually began. John Harvard, in establishing his college in Cambridge, Massachusetts, in 1636, borrowed quite understandably from his experience at Cambridge University, England. He had spent 4 years in college as a student there, and it seemed to him quite reasonable to impose this time span upon generations to come. Harvard introduced 4 years of college as the normal length of study, and nearly all institutions after that have fallen in line.

However, several footnotes should be introduced. As a matter of fact, it wasn't long after John Harvard finished Cambridge that his alma mater shifted from 4 years to 3, and it has followed that schedule to this day. One speculates that if John Harvard had been born a bit later he might have introduced a 3-year college in the new world, and I might be discussing with you the possibility of reducing that to a 2-year plan.

Further, it's interesting to note that when students entered Harvard University in the early years of higher learning in this country, they had completed only 7 or 8 years of formal schooling and were entering college in their early teens, often graduating from the institution at 18 or 19, a time when today's freshmen begin their college study.

But let's consider how times have changed. During the last century, the 8 years of preparatory school and 4 years of college were dramatically overhauled to include 4 years of high school which were wedged in between the two. Students who one time entered Harvard as prepuberty students began to enter Harvard as near-adults with whiskers on their chins.

In fact, Charles Eliot, the President of Harvard, became alarmed at this trend before the turn of the century, and said with considerable feeling that the average age of the entering freshman had "reached the extravagant limit of 18 years and 10 months." Going to college in those days meant that students were graduating in their mid-20s and thus spending half of their lives in school, since in 1900 the average white male had an average life span of only 46 years.

Students Becoming Adults Earlier

In addition to the introduction of high schools, students have, in more recent years, become adults earlier than before. Physically, they're 3 inches taller and 20 pounds heavier than they were 50 years ago. They enter puberty 18 months earlier than in 1920.

Academically, they have more schooling than ever before. In 1950, 77% of the children went to kindergarten; today, 90% do. In 1950, 10% of the children went to prekindergarten; today nearly 40% do. In 1900, the average student spent 99 days in school each year; in 1950, that rose to 157; and in 1970, the average student spent 170 days in school. All this means that, overall, young people today spend twice as much time in school as did their grandparents, and 25% more than was true just one generation ago.

These basic shifts in the circumstances in which we carry on education led us to a third basic assumption about education in the future.

There will be greater flexibility in the length of baccalaureate study to reflect the greater difference among the students and the changes within them, and there will be closer linkages between high school and college.

Reducing Term of Study

This assumption led the State University of New York to introduce several basic innovations which have reduced our term of study by at least one full year and have begun to tie together the state's high school and college programs more closely.

Basically, we are testing two separate notions. One is that the standard 4-year college baccalaureate degree program can be condensed to less than 4 years. The other is that the combined high school and college experience can be both much more integrated and less time-consuming than it has been. In both instances, the 8-year high school-college lockstep is being reduced to 7.

The State University's College of Arts and Science at Geneseo was the first college to introduce a 3-year degree, having begun its program in September 1971. At Geneseo the shorter degree option was offered only to high-ranking incoming freshmen who, on the basis of entering tests, could be expected to achieve a 2.50 academic average or above in college. Of the 1972-73 entering class of 800, about 400 are enrolled in the 3-year option. Thus, half of Geneseo's freshman class was enrolled in the shorter degree program in the

fall of 1972, and we anticipate that 80 to 90% of the students enrolled at that campus will be in a time-shortened program by 1975.

The aim at Geneseo is to try to develop an entire college where 3-year degrees are the norm, with 4- or 5-year degrees as an option. As part of this effort, the faculty is redesigning the curriculum with special emphasis on new interdisciplinary courses and fewer sequential requirements.

At the College of Arts and Science at Brockport, a special 3-year college-within-the-college is being established. This unit will be staffed with an independent faculty and its own admissions personnel, and will be permitted to offer its own program in general education. The idea here is to concentrate on designing a new kind of 3-year liberal arts degree program which assumes that today's students now receive in high school much of that core of knowledge that traditionally has been given at the collegiate level.

Under the Brockport plan, students will no longer take their general education courses before their major subject, but will receive more advanced liberal arts courses together with their major studies. In this experiment, new techniques of teaching, testing, grading, and faculty relations will be tried. For example, each student will have a special faculty mentor with whom he or she will work very closely during his or her first year.

The State University has under way two experiments that hope to combine more effectively the high school and college years. Within the State University at Albany, one of our four University Centers, an entirely new small college, called the James Allen Collegiate Center (in memory of the leading educator from New York), has admitted a fall semester class of high school students who have completed the junior year.

Our purpose here is to make special enrollment opportunities available to a limited number of highly qualified young people, admit them a year early to the University, and then permit them to complete their 12th grade and the first two collegiate years—normally a 3-year experience—in 2 years, thus avoiding the duplication and overlap that many college freshmen complain about.

For the final 2 years of college, the students will have the options of remaining at James Allen, which will have a specially planned upper-division program, of transferring to another division of the University at Albany, or of transferring to another campus in the University system.

Summary

Some warn that intensive planning should be avoided because gazing into a crystal ball can be hazardous. My response is simply this: If crystal ball gazing is hazardous, rear view mirror gazing is absolutely disastrous. The institutions of higher learning must understand that our institutional health, and possibly our very survival, hinges upon our capacity to plan.

Our job in education is to plant the seeds of change now so that our institutions will not become increasingly obsolete. We must analyze the trends, make rational assumptions about the impact such changes will have upon our work, and then introduce responsible action steps—innovations—which seem to be in line with the emerging realities.

STATE PLANS FOR DIRECT FINANCIAL AID TO STUDENTS

Joseph D. Boyd
Executive Director
Illinois State Scholarship Commission

Direct or indirect aid? Institutional or student aid? How much of each and in what combination? These are most important questions facing both federal and state legislators as they make appropriations from the public treasury to meet the costs of higher education. As we arrive at a point one-quarter through the decade of the seventies, all higher education is confronted with less receptive appropriation committees and is facing ever-increasing costs. The old arguments are not good enough. Educational planners and legislators alike are challenging the cost of *quantity* of the educational product, which deals primarily with numbers of students and ever-increasing enrollments. The trend is definitely to emphasize *quality* of the educational product—in other words, to examine what is really being learned. This shift in emphasis is largely the result of demands for more accountability, innovation, and new delivery systems to more efficiently use and thus get greater benefits from the tax dollar.

In this climate of stress and fiscal uncertainty, the role of state-funded student nonrepayable gift aid programs for the financially needy has taken new significance.

For years all states have provided some form of benefit to higher education. Institutional aid (a form of subsidy to all students enrolled at public institutions) has enabled the charging of modest tuitions to students in order to permit higher education to exist as a public service to society and a benefit to the student while both society (represented by the state) and the student were making a contribution.

A careful examination of who benefits and who must or should pay indicates to many educational planners certain inequities. Among them are the following:

1. Not all students and families are able to meet, without extensive work or excessive borrowing, their share of the cost at public colleges;
2. Many students and families are financially able to meet much higher tuition costs than now exist; and
3. Cost, not an appropriate educational program, too often determines where a student enrolls.

These three concerns have caused many educational planners to believe that greater equity, better use of limited financial resources, heightened accountability, and an improved choice among institutions are more likely to happen in the future, when greater amounts of state tax dollars are channeled directly to students in financial need and fewer are made available in the form of direct institutional support. This is a major issue now seriously discussed in many states.

Student aid based upon need which definitely considers the facts of rising public tuitions and the tendency toward less general institutional support for operating costs is a new trend in financing public higher education. Before discussing this type of planning, however, let's examine where state student aid has been, where we are now, and where we probably will be in the years ahead.

Historical Development of Student Aid

The main thrust over the past 15 years has been evolving away from meeting the needs of various types or categories of students and toward more comprehensive aid programs, designed for broader purposes. In other words, the new stress is to begin to respond to those students who cannot meet increasing college costs, not just those qualifying under a specialized program.

Types of Programs

A brief review of the movement from categorical to comprehensive state monetary award programs includes the following types of state student aid programs, stated more or less in the order of their historical development:

- Manpower needs in the form of awards to teachers, nurses, etc., have been among the oldest and more important determinants for state aid to students.
- Benefits to veterans have long included aid in financing their higher education.
- States have assisted the physically handicapped in vocational training that will yield long-run benefits to both the students and the states.
- Legislative district awards, based on the location of the student's residence, have evolved as a form of personal privilege for legislators.
- Scholarship aid has developed to assist those with high ability, both as an incentive and as a prize.
- The assistance of those who have high ability but also demonstrate financial need has directed the use of state funds to more pragmatic and economic ends.
- Combining ability and need has further refined the selection process and has effected a compromise in what criteria a state award winner should meet.
- Comprehensive, rather than categorical, aid programs have been made available to residents to attend either public or private institutions based on need alone, without regard to academic achievement beyond the student's ability to meet college entrance requirements.
- Special programs have been developed to meet the requirements of those students having extreme need.
- Programs have been developed specifically to enable those with financial need to attend private colleges.
- The states have found means to provide both public and private institutions with their required share of federal matching aid programs, such as the Educational Opportunity Grants, College Work-Study, and National Student Defense Loans.

Goals of Student Aid

Each state has the freedom to decide what goals or purposes for direct student financial aid are most meaningful for them. There are six major and basic goals that have been considered over the past years, and I would like to discuss each briefly.

One is to promote *access* to college, i.e., to open the door to higher education *somewhere* for those of such need that they could not otherwise attend.

A second is promoting the freedom of college *choice*. My definition of freedom of college choice refers to the freedom to select either public or private institutions. Historically, comprehensive state programs have tended to give equal or higher concern with freedom of choice over freedom of access. Each state has its own unique composition of public and private, 2- and 4-year colleges, and the freedom of each individual state to tailor its monetary award program to the composition of the various types of institutions within that state is a strength of individual state planning. The continued existence of many outstanding nonpublic institutions of higher learning is seriously threatened by fiscal problems, and the preservation of strong public and nonpublic institutions is deemed to be an economic necessity and a desired educational goal. With the assistance of the state in the form of aid to students who would otherwise be unable to afford the higher costs of the private colleges, these colleges are helped to fill unused space and maintain their economic stability while student freedom of choice is preserved. However, the receiving of tax dollars that directly or indirectly support private education must require these colleges to become a part of the master planning of each state to make the most economical use of all resources. Diversity among and in institutions has made and is making distinctive contributions to social progress, providing a wide range of exposure and educational opportunity for varied individual needs. Without the diversion of students from public to private institutions, the needed funds for ever larger tax-assisted faculty and staff and the costs of ever more buildings and equipment at tax-assisted state universities could far exceed the cost of monetary awards for needy students to attend private colleges.

Since most states have been and are currently involved in establishing substantial tuition increases in the years ahead at public senior colleges, another major goal of a well-planned state aid program for higher education is to meet the costs with less general support to public institutions but with more direct student aid. This has the effect of the state's giving help to those students finding it more difficult to meet escalating tuition costs, while

requiring more from those families who *can* afford to absorb these higher tuitions. This is an attempt to bring equity into the consideration of who is paying for what in the financing of higher education.

A fourth goal of a well-organized comprehensive state financial student aid program is to reduce or eliminate high ability as a primary prerequisite to the obtainment of a monetary award and permit all enrolled financially needy students access to aid.

Another goal is to encourage enrollment by actively reaching out with aid to the minority and poverty groups now desiring higher education to a degree not previously experienced. One of the great problems we face is the communication of the awards opportunities to some of those very students who could benefit most: the ones in inner-city school environments for whom the conventional methods of publicizing such opportunities are apt to be ineffective. One answer to this problem that we are trying in Illinois is the recent opening of an Office of Informational Services for the Illinois State Scholarship Commission, staffed by professionals who not only know *about* these groups of youngsters but who may be a product of such groups themselves. Another example of active outreach is our newly formed Advisory Committee on Equal Educational Opportunity, composed of professional members of organizations throughout the state that work with minority and poverty groups.

Another indirect goal of student aid, possibly of great importance, results from the fact that students have little long-term memory of the taxpayers' investment in them through institutional aid; however, they are more likely to have a sustained memory of their direct aid, and their attitudes to government and its meeting of public needs may be significantly more responsible in their adult taxpaying years as a result of the assistance they personally received in obtaining a college-level education.

The most recent goal or purpose of state direct student aid programs is to complement the student aid efforts of the federal government. Many of the federal aid programs have historically not been based on financial need. Social Security benefits and veterans' benefits have been defined as a supplement to the rest of the family income. The three basic federal aid programs (prior to the Education Amendments of 1972) have been Educational Opportunity Grants, the College Work-Study Program, and National Defense Student Loans. These programs have been targeted to the low income groups and helped students with absolute need (few, if any, resources to attend any college). In contrast, most of the existing comprehensive state monetary

award programs are determining need on a relative basis (comparing the financial strength of a given family with a specific college's cost budget).

Future Administration of Aid Programs

There are three major sections of the federal Education Amendments of 1972 which can dramatically affect state efforts and the extent of the monetary award programs. They are Grants to States for State Student Incentives, Basic Educational Opportunity Grants, and direct institutional aid. If and when these are funded at the level permitted within the authority of these programs, each state will be required to review carefully what purposes its aid should play in relationship to an increased federal involvement. The Grants to States for State Student Incentives is a yearly \$50,000,000 incentive program for new grant winners. It will encourage the existence of a monetary award program in all 50 of the states and eventually lead to an increased possibility of reciprocity agreements among the states. This specialized form of revenue sharing could be considered as a prototype of a meaningful partnership of federal and state aid for higher education. The Basic Educational Opportunity Grants, if fully funded at \$980,000,000, will dramatically diminish the role of the states in providing access for severely needy students. States may then be able to use more of their funds to permit choice. A substantial increase in direct federal aid could diminish state direct aid and thus result in reducing the pressure on all institutions to constantly raise tuitions as a means to meet ever-increasing budgets. It could also permit the state to offer less of a total maximum award in meeting its dual purposes of access and choice.

Trends and Changes

For the past 3 years I have carefully surveyed what the states have appropriated in comprehensive aid—that which is based upon need but is open to residents to attend public or private institutions. I have also noted trends and changes. In the 3 academic years 1969-70, 1970-71, and 1971-72, total dollars appropriated in the 22 states surveyed were, respectively, \$199,922,000, \$236,280,000, and \$279,338,000. This represents an 18% increase in dollars appropriated for *each* of the past 2 years over the preceding year. The per capita appropriation in all states surveyed was \$1.76 in 1971, and it increased to \$1.96 in 1972 (see Table 1).

In the 3 academic years 1969-70, 1970-71, and 1971-72, the number of monetary awards in the states surveyed was 470,839; 535,161; and 635,503 respectively. Percentage increases in number of monetary awards were 14% in 1970-71 over 1969-70 and 19% in 1971-72 over 1970-71 (see Table 2).

Following are some of the program changes noted in the various states between the 1970-71 and 1971-72 award years. In Florida, categorical awards in teaching and nursing not based on need were phased out after July 1971. In Illinois, hospital schools of nursing will qualify as eligible institutions for 1972-73 awards, but teacher education awards are being phased out. In Maryland, teacher education scholarships are being discontinued. New York graduate fellowships were dropped in 1971-72. Rhode Island will be assisting students in hospital schools of nursing.

Seventeen states have noncompetitive, or grant, awards not requiring high academic potential. In 1971-72 such awards totaled \$197,711,000, a figure which comprises 70.8% of all the comprehensive awards. Ten states have either enacted monetary award programs with funding or have initiated or expanded activity, beginning with 1972-73. These states are Tennessee, Maine, Kansas, Missouri, Florida, Virginia, Georgia, Kentucky, Nebraska, and South Carolina.

Six states have programs for private college students only. In 1971-72, \$18,375,000 was awarded in these six states; this total represents 6.6% of all comprehensive award programs.

Twelve states give honorary awards for which no dollars are given but which are identified by certificates of recognition. As of 1971-72, six states assisted students at hospital schools of nursing, and seven states assisted students attending out-of-state colleges.

The 1971-72 survey lists 10 states with administration of comprehensive state financial aid programs under a separate legislatively empowered commission or agency with specific or limited purposes: California, Illinois, Indiana, Iowa, Maryland, Oregon, Pennsylvania, Vermont, Washington, and Wisconsin. Twelve states with comprehensive programs administer them under a master board (with varied responsibilities) or a state department of education. States in this category are Connecticut, Florida, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Rhode Island, Texas and West Virginia. This sort of picture reflects one of the most urgent and, we believe, the most practical thrusts for the future administration of state awards programs: the consolidation into one state agency of those programs of student financial aid now being administered through various state departments and divisions. Offsetting the criticism of placing all student aid in one bureaucracy would be the obvious advantages of having one agency disseminate information concerning the programs, process the applicants, determine the need, and administer the funds, in addition to communicating

TABLE 1

Total Dollars Appropriated by States for Comprehensive Undergraduate State (Competitive and Noncompetitive) Programs of Financial Aid Based upon Need for Residents of the State to Attend Either Public or Nonpublic Colleges or Universities

State	Comparative Report for 1969-70, 1970-71, and 1971-72 Academic Years				Average Award		Ratio of '70-'71 Dollars to 1970 Popula- tion	Ratio of '71-'72 Dollars to 1970 Popula- tion
	Total Dollars Appropriated				'69-'70	'70-'71		
	1969-70	1970-71	1971-72					
California	\$ 11,865,143	\$ 15,531,750	\$ 18,834,525	\$808	\$861	\$788	\$.94	
Connecticut	906,675	1,570,550	1,329,587	597	669	668	.44	
Florida	*	1,520,000	600,000	--	691	750	.09	
Illinois	26,058,608	33,102,799	39,400,000	681	687	679	3.55	
Indiana	3,080,000	3,140,000	7,357,280	470	435	715	1.42	
Iowa	1,762,500	3,262,500	4,290,000	652	799	905	1.52	
Kansas	150,000	150,000	150,000	367	500	463	.07	
Maryland	2,900,000	2,750,000	3,211,000	400	422	338	.82	
Massachusetts	2,000,000	3,500,000	8,000,000	667	538	500	.62	
Michigan	12,500,000	12,867,000	13,268,000	520	548	570	1.51	
Minnesota	775,000	1,475,000	2,630,000	599	600	676	.69	
New Jersey	11,850,000	18,836,000	21,972,621	445	594	615	3.07	

New York	67,745,320	70,300,000	76,250,000	276	278	254	3.86	4.19
Ohio	*	8,500,000	15,000,000	--	567	600	.80	1.41
Oregon	815,400	530,000	1,055,000	117	128	402	.25	.50
Pennsylvania	51,400,000	51,400,000	55,458,000	664	605	596	4.36	4.70
Rhode Island	1,500,000	1,475,700	1,861,000	750	609	748	1.55	1.96
Texas	*	*	1,000,000	--	--	500	--	.09
Vermont	1,099,255	1,310,000	2,400,000	523	416	632	2.95	5.40
Washington	390,000	1,445,869	1,445,869	465	135	135	.42	.42
West Virginia	175,000	250,000	300,000	280	313	300	.14	.17
Wisconsin	2,950,000	3,363,000	3,526,000	310	389	415	.76	.80
Totals	\$199,922,901	\$236,280,168	\$279,338,882	\$425	\$442	\$437	\$1.76	\$1.92

Percentage Increase
over Previous Year

Up 18%

Up 18%

*Program not in existence for year indicated.

TABLE 2
Total Number of Monetary Awards

State	Number of Monetary Awards			Percentage of Total		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
California	14,683	18,035	23,899	3.12	3.37	3.76
Connecticut	1,519	2,346	1,990	.32	.44	.31
Florida	*	2,200	800	--	.41	.13
Illinois	38,270	48,166	58,011	8.13	9.00	9.13
Indiana	6,550	7,214	10,297	1.39	1.35	1.62
Iowa	2,705	4,082	4,738	.57	.76	.75
Kansas	409	300	324	.09	.06	.05
Maryland	7,250	6,512	9,500	1.54	1.22	1.49
Massachusetts	3,000	6,500	14,000	.64	1.21	2.20
Michigan	24,030	22,758	23,500	5.10	4.25	3.70
Minnesota	1,293	2,460	3,890	.27	.46	.61
New Jersey	26,658	31,700	35,715	5.66	5.92	5.62
New York	245,038	253,000	299,700	52.04	47.28	47.16
Ohio	*	15,000	25,000	--	2.80	3.93
Oregon	6,961	4,140	2,625	1.48	.77	.41
Pennsylvania	77,400	85,000	93,000	16.44	15.88	14.63
Rhode Island	2,000	2,423	2,489	.42	.45	.39
Texas	*	*	2,000	--	--	.31
Vermont	2,100	3,150	3,800	.45	.59	.60
Washington	838	10,725	10,725	.18	2.00	1.69
West Virginia	625	800	1,000	.13	.15	.16
Wisconsin	9,510	8,650	8,500	2.02	1.62	1.34
Totals	470,839	535,161	635,503	100.00	100.00	100.00
Percentage Increase over Previous Year		Up 14%	Up 19%			

*Program not in existence for year indicated.

the opportunities and building standardization and equity into the procedures and award decisions. In addition, consolidation implies simply that there should be as few programs as necessary, by title or by funding, in order to permit the improvement of the communication problem between the agency and the high schools, the colleges, and the parents or potential recipients. In my opinion, the basic program of state student aid should be administered outside the institutions to remove any element of institutional paternalism, to

reduce financial influences in choice of institutions, to relieve institutions of a costly financial burden, achieve a smaller per unit cost of administration, and preserve the freedom of college choice and transferability of an award.

A state, in planning to assist students, must have in mind the existence, availability, and effect of loan funds. Monetary awards are only one part of the packaging of aid for a needy student. How adequately are the federal and state loans meeting the needs of the students? Should a state become a direct lender, or should it be a participant in the federally insured loan program as a state? Should the state take a position on income contingency loan repayment plans? Is the so-called Cilligan Plan (an expectation on the part of the student that someday he is to repay all of the dollars which a state has invested in him as a student) an appropriate response for the states to consider?

New Considerations for Planning

Each state is planning for continued enrollment growth through the late seventies and is having to live with an expected drop of enrollment in the early eighties. It will be necessary in planning for the years ahead to find answers to some difficult questions:

- Should part-time students be given assistance?
- Should students enrolled at for-profit schools be helped?
- Considering the fact that so many students change majors or drop out temporarily nowadays, should aid be extended through 5 years of undergraduate study?
- Should students attending schools out of state be given money from state tax dollars? This question should be considered in relationship to the possibility of reciprocity agreements among the states.
- How high a maximum award amount is needed to permit choice? Setting too high a maximum may actually push tuition increases to a level beyond that required for a quality program. Setting too low a maximum amount may not implement the goal of freedom of choice, for access to the institution of one's choice is denied when there is not enough financial aid to help a student consider attendance at a higher cost college he may desire to attend.

- Should aid be extended on the graduate level?
- Do vocational/technical schools have a valid claim for consideration of state financial assistance for their students, given the reality that career education rather than a general liberal arts education is another trend in line with the increasing need, in the vocational world, for specialization? While this trend may be considered unacceptable by those who feel society desperately needs more individuals educated for flexibility and ability to deal with the broader aspects of life both in its vocational and general societal development, the fact remains that vocational/technical schools will continue to appeal to ever-increasing numbers of students whose grasp of the need for financial survival in later years is only too real. And if trade schools are to be included in state financial aid programs, can we demand enrollment with a stated goal of an Associate Degree in Occupational Studies?
- Credit by examination is a phenomenon that must be taken into consideration, and with this problem it is a matter of who pays and how much.
- More and more we shall have to look closely at our definitions of the emancipated or self-supporting student.
- Would higher benefits and awards structures for married students have the effect of subsidizing marriage indirectly?
- What will be the impact of the new National Alternate Standard for Need Analysis (NASNA)?
- What will be the impact of student disenchantment with higher education coupled with the realities of a tough job market?
- Should states begin funded work-study programs?

We are very aware that there is an ever-increasing drain on state treasuries as other forms of welfare besides higher education make their demands upon the states' monetary resources. It is entirely possible that funds will not be available to state programs to dispense awards to all those who show real financial need. Various possibilities exist to deal with this situation. If there is insufficient appropriation by a legislature to meet the projected payout of funds to needy students, it may be necessary to rank students on the basis of the ability of their parents to afford to send them to college, to deny any aid

to those applying latest, or to cut a percentage of aid to all winners, both new and renewal.

There must be a real attempt to administer the distribution of public funds wisely. Thus, in addition to the maximum amount of an award, other factors besides assessing financial need operate in helping to control the payout to individual students and hence to all students. The parents of students applying for monetary awards in many states must agree to give the state award program access to their income tax returns to verify their application statements on income and assets. In the 1971-72 award year, the Illinois State Scholarship Commission identified over 400 cases of casual or false reporting, resulting in the withdrawal of monetary awards. We are continuing to explore what other procedures might be taken to obtain valid information from all applicants.

Most states expect that a student will provide, for some expenses, funds obtained by his own employment during the summer or from part-time employment while attending school. It is not unreasonable to expect, and in fact most state programs do expect, that the potential award winner will very likely also have to borrow for a modest part of his postsecondary educational expenses, though excessive borrowing is not required. The Illinois State Scholarship Commission expects that approximately one-quarter of the specific college cost (\$500-\$1,000) of an academic year's budget will be provided by the student himself/herself. The ideal we wish to strive for is a realistic share of the overall costs of higher education from the parents, students, the institutions, various levels of government, business and industry, foundations, and philanthropic individuals; so these additional sources of funds must be taken into consideration by educational planners.

Significant Trend

Direct state financial aid to students, then, has the goals of promoting diversity, providing freedom of access and freedom of choice, furnishing a new means to finance higher education as public tuitions increase and general aid decreases, providing a means of improving accountability, as well as a way for legislators and chief executive officers to more visibly show taxpayers benefits derived from their taxes. *The shift away from programs developed predominantly to divert students to private institutions and toward programs that also furnish the means to finance, at less total cost, the public institutions by letting public tuition approach true operational cost is probably the most significant trend in state direct financial aid to students at the present time.* Assisting students at private schools minimizes the

constitutional question of direct aid to private institutions while it enables the state to have a strong dual system of higher education. Providing student aid for needy students at public colleges facing ever-increasing tuition changes also provides for them access and freedom to make this choice.

Aid Programs Must Become Responsive and Flexible

Planning for state student aid programs must be dynamic and respond to new goals and purposes as deemed best at a specific moment in time. *Individual and public interest are involved in every decision made concerning higher education.* The challenge and goal of our system of higher education is to be able to demonstrate by word and practice that no young American who may reasonably be expected to benefit from such study shall be denied the opportunity to attend an appropriate postsecondary educational institution of his choice simply because he lacks the dollars to make his decision a reality. This will require thoughtful and realistic decision making among all of us concerned with facilitating the opportunities for our youth for formal education beyond the high school level.

The coordination of state and federal efforts in financial aid to both institutions and students will be of utmost importance in the immediate future. Federal programs have a common denominator to be applied to all states. States can and should build their own programs in ways which best serve their own needs and goals.

**THE ECONOMIC BASE
FOR STATEWIDE SYSTEMS PLANNING:
THE NATURE OF THE PROBLEM**

Charles R. Klasson

Associate Dean of Academic Programs, Professor of
Organizational and Policy Sciences, College of
Business Administration, The University of Iowa

There are few practical problems in which the economist has a more direct interest than those relating to the principles on which the expense of the education of children should be divided between the state and parents.

Alfred Marshall

Equality of educational opportunity remains a key sociopolitical goal of countries throughout most of the world. With education viewed as a central means of attaining individual and aggregate economic growth and development, considerable planning is directed toward developing socially optimal policies that create and maintain educational systems which are economically viable and politically feasible.¹ Within the United States, educational opportunity is nearly a reality at the primary and secondary levels but remains a formidable goal for achievement at higher educational levels. Clearly, we have neither equality nor opportunity for all those motivated to and qualified for various kinds of postsecondary educational experiences. While we have come a long way since the turn of this century in expanding educational opportunity in general, future progress undoubtedly will be

¹ E. Denison, *The Sources of Economic Growth in the United States and the Alternatives Before Us*, Supp. Paper No. 13 (New York: Committee for Economic Development, 1962); R. L. Johns and E. L. Morphet, *The Economics and Financing of Education: A System Approach* (Englewood Cliffs, N.J.: Prentice-Hall, 1969); and S. Bowles, *Planning Educational Systems for Economic Growth* (Cambridge: Harvard University Press, 1969).

much slower, more painful, and costly to achieve. This will be especially true in view of—

- present status of national problems that will influence the setting of national goals,
- present tax burden and fiscal problems of states,
- present flux in cultural values, and
- present structure—economic and noneconomic—of higher education in the United States.

Each of the above set of factors plays a key role in shaping the nature of educational policy at the national, state, and local levels. Policies which emerge over time, ultimately influence the resource generation and allocation process that in turn support our educational goals. The efficacy of such policies undoubtedly is related to our ability to frame the planning problem in its proper setting. Indeed, one of the greatest contributions to the advancement of higher education might be revealed through an analysis of past and projected policy alternatives given those problems we elect to resolve.

An Estimate of the Planning Environment

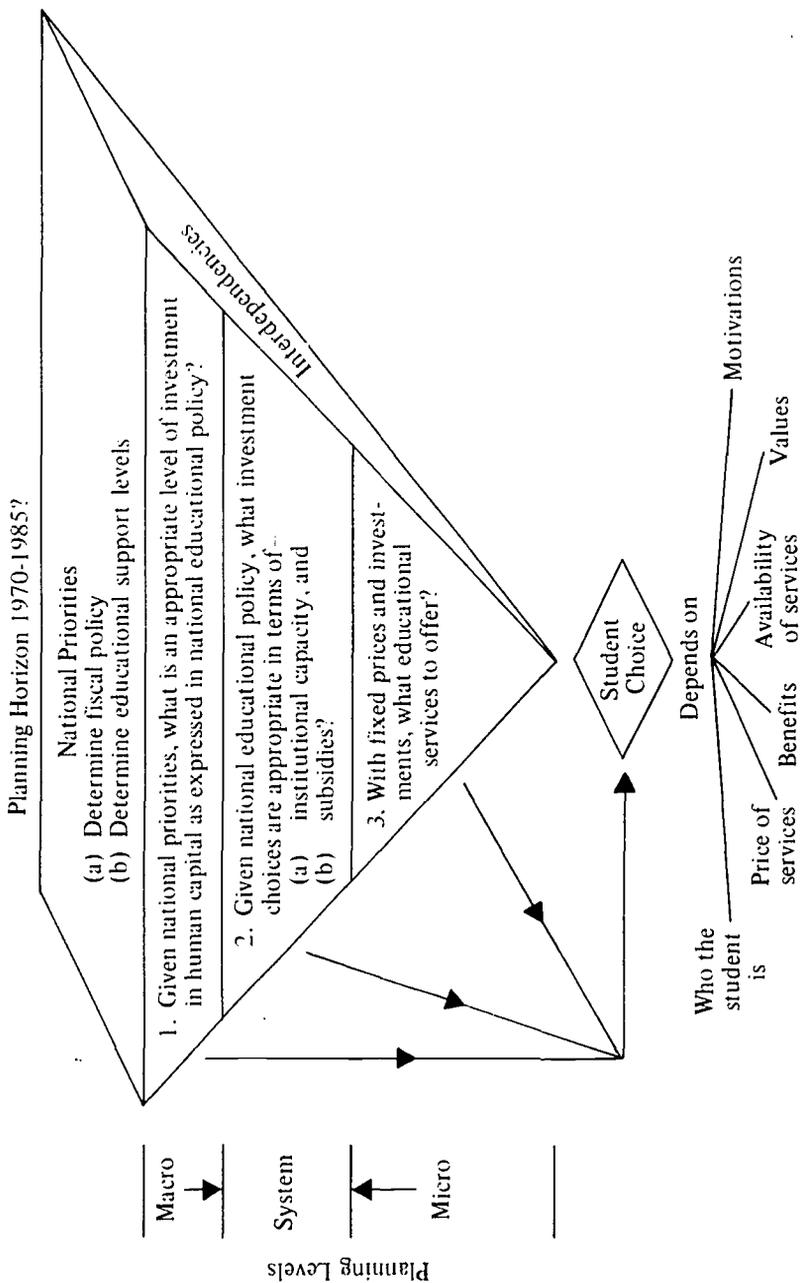
A major function of planning is to reduce the amount of uncertainty associated with decision alternatives in order that choices will have a good chance of achieving desired outcomes. Most forecasting models attempt to reduce some degree of uncertainty based upon an extension of historical trend data. Such time series estimates operate with major assumptions regarding sources of variation of key variables. Consequently, policy makers must *discount* such trends in view of their judgment of future state variables that will shape the environment of their decisions. In this regard, statewide public educational planning must entail recognition of both national and local factors that play central roles in (a) establishing formal long-range planning approaches and (b) deciding upon annual budgeting priorities given estimates of educational system needs.

National Goals and Priorities

Figure 1 suggests that national goals and priorities will continue to influence the allocation of funds for and control over educational opportunity. The dramatic impact of recent withdrawals of federal support to just graduate education portends the magnitude of federal constraints in formulating educational policy at state levels. Some planning premises worth noting include:

1. Federal support to higher education, regardless of form or incentive, will not represent an adequate replacement for reductions in present levels of

Fig. 1. A framework for assessing economic base for educational system planning.



Planning Levels

Macro

System

Micro

state appropriations. Consequently, statewide higher educational goals and services must be reassessed in light of revenue sources and levels. The revenue function and its characteristics are becoming much more certain.

2. Pressing national social problems will command and receive a higher priority for federal support than that accorded to higher education. (Pollution, urban, transportation, health, employment, and price stability are examples of current issues.) All the inadequacies of current educational services do not approach in severity or impact those associated with lingering social ills. Public pressures will force reordering of public priorities. The process will be slow but certain in effect.
3. Continuing public finance problems connected with primary and secondary levels of education will receive high political and, ultimately, legislative priority. Once supported, the priority will remain in effect for a significant time period.
4. Continued reliance upon federal support for education will force state agencies and institutions to conform to mandatory reporting systems, thus reducing the amount of autonomy over local planning and major policy program formulation. Proposed education amendments of 1972 to the Higher Education Act of 1971 provide several specific examples.²
5. As an *increasing cost industry* with no immediate reversal projected, higher education will be forced by federal persuasion to explore technology, administration, and certification practices. This in turn will force a reassessment of current policies at both state and local levels. Such actions will unavoidably result in more centralization of institutional goals and policies that directly influence costs of delivering educational services throughout statewide systems. In those states where such actions already exist, the tempo will be quickened causing considerable institutional instability.
6. National needs for vocational intelligence along with academic intelligence will engender increased private support to create new *peripheral educational systems* that will offer other competing educational services. Availability of such services at lower opportunity costs will detract from the value of conventional college services and, hence, reduce enrollments. This in turn will delay further major financial commitments to our existing

²See *Education Amendment of 1972*, Conference Report No. 92-798, 92nd Congress, 2nd Session, May 22, 1972.

systems until the emerging pattern of institutional services becomes more definitive.³

Accepting the approximate accuracy of these premises, one can speculate about their direct effect on statewide planning in terms of

- a reduction in direct federal financial support of higher education institutions,
- an increase in indirect federal control over policy formulation at state levels,
- an increase in federal efforts to provide more direct student nonrepayable aid, and
- an indeterminate short-run shift in the magnitude and composition of demand for postsecondary higher education.

State Setting

The role of state coordinating and governing agencies will be modified not only by developments from the national scene, but also by growing state pressures for evidence of detailed analysis of system needs. This pressure for more formal analysis will complicate current policy evaluation activities in view of emerging operating problems within *existing* systems. These problems include the likelihood that

1. traditional sources of educational demands are leveling off and will continue to do so during the mid-seventies and early eighties (uncertainty about new types of demands must be dealt with at present by modifying existing master plans);

³R. Millard et al., Ed., *Planning and Management Practices in Higher Education: Promise or Dilemma?* Proceedings of the National Forum on New Planning and Management Practices in Higher Education, 1972.

2. educational capacity problems in the form of excess capital investment—physical (plant and equipment) and human (tenured faculty) will cause an increase in the already high unit costs of education;⁴
3. proportions of state budgets allocated to higher education will generally not increase but in fact decrease (more will be expected from less);
4. private higher education will continue to experience severe financial pressures vis-a-vis public counterparts resulting in the loss of institutional prestige as measured by the cost and quality of the education received;
5. in view of “4” above, states must be prepared to either absorb selected private institutions which might otherwise fail, or provide direct financial support as is practiced in several states already if private education is to be preserved; and
6. the realities of state fiscal crises will cause short-run policy decisions to be made that will have both positive and negative impacts upon good and poor educational programs alike.

The planning implications of these events are tremendous for those providing leadership for statewide planning.⁵ Planners will initiate actions that seem destined to radically transform the nature of higher education in terms of its supply (capacity) and demand (consumption). Since the stakes are high, *planning strategy* employed to facilitate the transformation will be crucial to the minimization of short-run adjustment costs and the maximization of long-run developments of social benefits. The objective of such planning must be to develop a mechanism for exploiting emerging opportunities to educate

⁴Examples of well-documented studies on financial issues in education include: *National Educational Finance Project*, “Alternative Programs for Financing Education,” Vol. 5, 1971; “Status and Impact of Educational Finance Programs,” Vol. 4, 1971; “Economic Factors Affecting the Financing of Education,” Vol. 2, 1970; and “Planning to Finance Education,” Vol. 3, 1971.

⁵For examples of statewide master planning, the following are excellent sources: The Master Plan Survey Team, *A Master Plan for Higher Education in California: 1960-1975* (Sacramento: California State Department of Education, 1960); North Carolina State Board of Higher Education, *Planning for Higher Education in North Carolina* (Raleigh: North Carolina State Board of Higher Education, 1968); Indiana State Policy Commission on Post High School Education, *Report of the State Policy Commission on Post High School Education* (Indianapolis: State of Indiana, 1968); The University of the State of New York, *The Regents Statewide Plan for the Expansion and Development of Higher Education*, 1964 (Albany, N.Y.: The State Education Department, 1965).

6. Unit administrators (chancellors, provosts, presidents, vice presidents, deans, and department heads) will be forced to *manage* their portfolios with greater central control and fewer resources. Given these constraints, major efforts must be made to avoid extinction by instinct. Intuitive management is out.
7. The present university structure - the strong reliance upon the collegium to handle academic matters usually without due analysis of ultimate educational and economic consequences of their policy decisions--will remain an inadequate vehicle to deal with the weighty trade-offs now in the making. While the old may preserve, it will no longer inhibit the emergence of new institutional instruments.

In all of the above is inferred the creation of a new *administrative mentality* that is charged with shaping a new era of continuing lifetime education through socially responsible policy evaluation and implementation. Planners cannot cling to past premises, familiar analytical approaches to planning the status quo, and traditional organizational methods for procuring and processing information and involving relevant parties to specific courses of action *if* we are to be successful in our pursuits. How then might we proceed?

Planning Strategy: Reactive or Proactive Response

During austere times normal organizational actions entail *reactive* responses designed to deal with existing problems. For example, during periods of severe fiscal retrenchment, systems experience traumatic and sometimes fatal experiences as missions are obviated or drastically curtailed, organizations disbanded or reduced, and resources reallocated or withdrawn. While the immediate or short-term economic problem may be satisfactorily served, long-term effects frequently may not be adequately assessed prior to implementing changes into existing operational programs. Social and economic costs of such action can be of tremendously large proportions. Consequently, policy makers must conscientiously select a *proactive* response designed to achieve worthwhile developments within our present educational system in terms of its structure, function, and performance. Such a response strategy recognizes that -

1. institutional reform cannot succeed in the absence of institutional commitment from those responsible for change- people;
2. innovation through experimentation is neither a sufficient condition nor a viable stratagem for initiating and culminating structural change;

and not to fend off what appear to be threats to existing systems. This represents a crucial administrative decision as state planners come to involve distinct units of their overall system. What environment confronts those units?

University and College Setting

Each unit within the system functions at the operational level to provide services that consume resources. Each unit ultimately affects the cost of and demand for services by their respective policies and administrative philosophies. Informational requirements and attending institutional controls will trigger the need to engage in more useful institutional planning. External pressures from consumers (students), on the one hand, and from state and federal funding agencies, on the other, have made obsolete existing planning practices such as they were. Consider these points:

1. Utilization of enrollment data as a means of requesting and receiving financial support through formula systems will be both an inadequate and insufficient planning approach.
2. Freedom to unilaterally change mission objectives or educational programs will be curtailed, since interinstitutional dependencies will grow, rather than decline in importance. Isolationism as an era is past.
3. Unit planners will be forced to identify *true* educational costs of each program and various levels of instruction, research, and service as related to educational goals. Both direct and indirect costs and revenue flows will represent minimal inputs.
4. Preservation of existing stages of institutional development will require serious self-analysis to ascertain the appropriateness of programs given mission statements.
5. Quasi-monopolistic control over the form and approach to providing educational services will abate or decline as political pressures force rethinking of admission, tuition, and certification policies. Increased attention to *true* market forces generates a need for new administrative planning and organizational skills not presently employed in many institutions.

3. orderly change designed to affect performance in a positive way must tolerate organizational adjustments which require assessment time;
4. developmental problems associated with ways of improving the overall performance of our educational system require significant expenditures of time for decision analysis prior to embarking upon alternative system configurations that offer merely the potential of greater effectiveness.

Anything less amounts to a serious failure of system analysts and policy makers to recognize the true dimensions of the planning problem before them, as opposed to the control problem. What then is the nature of the so-called planning problem before educational planners?

Accepting the assumption that something is inherently wrong or inadequate with existing educational services now offered by institutions of higher education, the question can be posed: "Is the problem essentially one of making the present system more efficient in terms of some set of performance expectations?" Actions already undertaken over the past 4 years by state legislatures and various federal agencies would seem to argue for a yes answer to this question. Numerous study groups, including a series of reports from the Carnegie Commission on Higher Education, seem to be saying "more will be expected for less" and we must "make our educational systems more responsive to the needs of societies." This emerging scenario seemed to become the state of affairs accepted by many of us; i.e., we must make the *present* system efficient by lowering the cost of educating the same student body, in the same way, in greater numbers and with fewer dollars.⁶ Paralleling these emergency actions that dealt with a rising *cost function*, other voices were calling for fundamental changes in institutional and degree structure, cultural setting within which education transpires, and the population serviced.⁷ Would institutional reform alleviate cost and revenue pressures and facilitate program innovation and more personalized instruction? Hopes run high.

⁶W. I. Hansen and A. A. Weisbrod, *Benefits, Costs and Finance of Public Higher Education* (Chicago: Markham Publishing Company, 1969); D. C. Rogers and H. S. Ruchlin, *Economics and Education* (New York: The Free Press, 1971).

⁷P. J. Smith, "Britain's Open University: Everyman's Classroom," *Saturday Review* (April 1972), p. 40; E. H. Schein, "The Reluctant Professor: Implications for University Management," *Sloan Management Review* (Fall 1970), pp. 35-49; and A. Ottinger and S. Marks, "Educational Technology: New Myths and Old Realities," *Harvard Educational Review*, Vol. 38, No. 4 (1968); the Carnegie Commission report entitled *Less Time, More Options: Education Beyond the High School*, 1971.

On the other hand, one can argue the problem is to facilitate the *effective incremental transition* of the existing system to a new state in which legitimate new educational needs may be flexibly accommodated.⁸ Effective transition means that the selected course of action must be executed in such a way as to preserve legitimate old institutions and functions, to cause changes in other functions, and to create new institutions and functions given estimated needs and known resource constraints. Nothing is gained by penalizing all elements of a system that serve legitimate functions. Alienation of professionals, administrators, alumni, and students alike serves no useful end, particularly not that of motivating progressive change.

Incremental transition facilitates progressive organizational development. Radical or large-scale change cannot occur short of revolution. Built-in institutional mechanisms that resist major change, provide stability, and insure continuity must be reviewed comprehensively prior to any attempt at altering major elements of our educational system. Figure 2 illustrates four specific classes of planning problems, appropriate administrative responses to them, and relative kinds of required organizational changes. The message intended is simply this: A series of continuous baby steps (incremental advances) usually adds up to greater progress than one giant step expended desperately to catch up. Small steps can entail major actions like controlling institutional enrollments. But they must be decisive, and they must include a careful assessment of likely outcomes.

Finally, the imperative for transition is great. Concerns are legitimate. Budgets are uncertain and society awaits our solutions. Let's examine the elements of our educational system that presently are targets of concern—its structure, function, and performance.

Institutional Structure

The overall economic characteristics of higher education are well-known and documented.⁹ But in particular, measurable economic behavior of this system

⁸Harold L. Hodgkinson, *Institutions in Transition* (New York: Carnegie Commission on Higher Education, 1970).

⁹G. S. Becker, *Human Capital: A Theoretical and Empirical Analysis* (New York: 1964); K. Arrow, *Social Choice and Individual Values* (New York: John Wiley, 1951); H. R. Bowen, *The Financing of Higher Education* (Berkeley, Calif.: Carnegie Commission on Higher Education, 1968); R. Campbell and B. N. Siegel, "The Demand for Higher Education in the United States, 1919-1964," *The American Economic Review*, 57

[Continued]

Fig. 2. Planning problems, administrative responses, and organizational changes.

Specific Classes of Planning Problems	Administrative Response	Organizational Changes and Effects
1. Maintenance of existing system configuration and budgeted priorities.	1. Simply manage status quo; <i>repetitive</i> planning.	1. None.
2. Reduction of support for existing educational system with no changes in budgeted priorities.	2. Minor changes; manage essential status quo but with lower level of support; <i>repetitive</i> planning.	2. Minor changes within existing structure; elimination of units within structure; aggressive-competitive response to preserve resource base.
3. Reduction of support for existing educational system and changes in budgeted priorities.	3. Major changes; <i>reactive</i> planning to modify present system and goals to accommodate increased or decreased support.	3. Minor structural changes; increase in acknowledgment of explorative planning needs; new roles and missions discussed; growing instability.
4. Development of changed educational delivery system which includes modified goals, structures, and functioning of units within the system.	4. Major changes. <i>Adaptive</i> and <i>innovative</i> planning required.	4. Major structural changes; new administrative roles, new reward systems, new information systems, new value system, flexible goal-centered response.

emanates from and is pivotal to the basic institutional unit. The composite of various types, numbers, and sizes of institutions results in what we can call *institutional structure*. Consequently, a first-order magnitude problem entails attempts to optimize in some sense institutional mix while setting aside for the moment the attending fact that structure determines in part function, and hence, possible system performance levels. The question of institutional mix is exceedingly complex since issues encompass capital investment levels, associated incremental operational expense needs, state and national funding responsibilities, and interinstitutional viability. Given the existing structure and the presence of economic scarcity, let's examine several problems with which state master planners must cope as they grapple with decision alternatives that entail efficient institutional mix.

First, any attempt to plan efficient investments in a nonmarket context is literally not possible. Any industry operating with (a) barriers to entry, (b) artificial investment supports, and (c) characteristics of a controlled, not free, market establishes conditions that generate inefficiencies by way of permitting misallocations to occur. In this sense, we must accept the fact that market forces do not operate to set prices at which educational services are demanded and supplied, which in turn enhance the economic distribution of educational benefits. An artificial market cannot reveal the adequacy or inadequacy of the system. For example, do we really know whether there is

(1967), pp. 482-494; A. M. Cartter, "The Supply of and Demand for College Teachers," *Journal of Human Resources*, 1 (1966), pp. 22-38. For two alternative demand models for higher education, see: H. Galper and R. Dunn, "A Short-run Demand Function for Higher Education in the U.S.," *Journal of Political Economy*, 77 (1969), incorporates effect of military service on demand, and P. Feldman and S. Hoenaek, "Private Demand for Higher Education in the U.S.," in *The Economics of Financing of Higher Education in the United States* (Washington, D.C.: U.S. Government Printing Office, 1969), examines additional variables like aptitude test performance, unemployment and earnings data and regional dummy variables. A. M. Cartter, "The Economics of Higher Education," in *Contemporary Economic Issues*, Ed., Neil W. Chamberlain (Homewood, Ill.: R. D. Irwin, 1969); W. L. Hansen, "Total and Private Rates of Return to Investment in Schooling," *Journal of Political Economy*, 71 (1963), pp. 128-140, discusses value of education in terms of social and private benefits from various levels of education against investments as measured both as total resource costs and total private resource costs; Seymour E. Harris, *Higher Education: Resources and Finance* (New York: McGraw Hill, 1962); H. H. Jenny and G. R. Winn, "Short-Run Cost Variations in Institutions of Higher Learning," in *The Economics and Financing of Higher Education in the United States*, A compendium of Papers Submitted to the Joint Economic Committee, Congress of the United States (Washington, D.C.: U. S. Government Printing Office, 1969); and R. L. Johns and E. L. Morphet, *The Economics and Financing of Education: A System Approach* (Englewood Cliffs, N.J.: Prentice-Hall, 1969).

over or under capital investment from the supply side?¹⁰ If investment levels are adequate, what about the distribution of appropriate services as among private and public units, 2-year and 4-year units, academic and vocational units, and still other services? If over invested, where do we divest and how? Is our present aggregate investment level inconsistent with a goal of accessibility and equality of educational opportunity?¹¹ Is the return on investment social benefits adequate?¹² Do fixed prices (tuitions) and subsidies truly reflect supply costs? If not, why not? Answers to such questions are not easily generated. But they point up one enduring and inevitable conclusion: The supply of institutional capacity (public policy) and demand for educational services (student choice) will always be incongruent and thus, economically inefficient. But present federal effort to emphasize student aid and to deemphasize direct institutional aid seems destined to place greater purchasing power in the hands of the educational consumer. This alternative, given the existing and emerging institutional mix, undoubtedly will intensify, not abate, the problem of institutional inefficiency having to manage an imbalanced institutional mix.

What trade-offs do we make as the mix is managed? Some 2,800 educational public and private institutions represent the present institutional mix as of 1970 according to the Office of Education. Of these institutions, three-fourths of all students were enrolled in publicly controlled institutions. This points out one dramatic shift in institutional mix: The share of students enrolled in private institutions continues to fall in number. Another obvious trend involves 2-year schools, the most rapidly growing institutions in American higher education. Accounting for about 38% of all institutions and enrolling about 28% of all students, 2-year institutions cannot help but impact seriously upon financial resources available to maintain doctoral-granting institutions and so-called comprehensive 4-year institutions. Public policy decisions will influence the ebb and flow of students among the above institutions, including the large multicampus institutions. They also will unavoidably affect the quality of education possible from each element of the existing system as the discontinuity of investment decisions takes effect. Have

¹⁰D. Wolfe and C. V. Kidd, "The Future Market for Ph.D.'s," *Science*, Vol. 173, No. 3999 (August 27, 1971), pp. 784-793.

¹¹P. J. Smith, "Britain's Open University: Everyman's Classroom," *Saturday Review* (April 1972), p. 40.

¹²H. S. Houthakker, "Education and Income," *Review of Economics and Statistics*, Vol. 41 (Feb. 1959), pp. 24-28; T. W. Schultz, *The Economic Value of Education* (New York: Columbia University Press, 1963).

we adequately assessed what price will be paid for *not* maintaining minimal fixed investments in support of, say, doctoral-research-oriented units? Opportunity costs, not incremental reductions in capital or operating budgets, is the relevant trade-off cost. Goal displacement must be recognized whenever mix decisions transpire. What price have we already paid for our emerging institutional structure?

Institutional Function

We have accepted the criticism that higher education is functionally inefficient besides being unresponsive to the true needs of society. However, the assertion of inefficiency remains to be demonstrated. No production function exists. To date, few economists have managed to build econometric models of this industry which have utility in an optimizing sense. Outputs, as WICHE admits, are exceedingly difficult to define on other than a surrogate basis.¹³ Generally, we have not used available professional talents from organizations like the American Council of Education, The American College Testing Program, and the Educational Testing Service to assess "rate of gain" acquired from a specified learning experience within certain institutional settings. With the exception of several professional areas that depend upon external assessment agencies, we know little about the *relative effectiveness* of various educational delivery systems.

Yet extensive pressure exists to try new ventures like the external degree, learning contracts, greater reliance upon self-study, and even the University Without Walls in hopes that the efficiency criterion can be more satisfactorily served. Such efforts require major change in functional requirements of the institution. Have we adequately assessed the prospects of achieving such ends let alone the effect on learning? While institutional mix seems destined to be changed, functional change will be much more difficult and expensive to implement. History reveals that there has been relatively little change in technology, professional role, or academic organization of individual units comprising our system.¹⁴ Prospects remain dim for *major* change since the nature of discovering and developing human potential remains a complex affair not conducive to simplistic methods. Evidence seems to suggest that resident intellectual expertise remains the essential core ingredient of an

¹³Western Inter-regional Commission on Higher Education, *The Outputs of Higher Education: Their Identification, Measurement and Evolution* (Boulder: Western Inter-regional Commission on Higher Education) July 1970.

¹⁴A. Ottinger and S. Marks, "Educational Technology: New Myths and Old Realities," *Harvard Educational Review*, Vol. 38, No. 4 (1968).

intellectual experience. Therefore, the present structure with known average costs for every level of school completed will continue to produce approximately the same units of knowledge per real dollar spent. Compared to other industries in which productivity gains have been realized, education will remain an increasing cost institution regardless of shifts in demand under present functional supply arrangements.¹⁵

Consequently, efforts directed at increasing faculty work loads, increasing class sizes, using facilities more intensively, and changing functional roles and technology do not represent steps that will have a profound direct short-run effect upon institutional effectiveness. To the contrary, quality deficits are claimed with some professional turning to representation as the means of preserving academic freedom and professional integrity.¹⁶ As a second-order magnitude problem, I personally am encouraged by contemporary innovations that do exist. They must be encouraged and supported, but they cannot be expected to transform the fundamental functional characteristics of the educational process in the foreseeable future. This assertion remains central to irreversible policy decisions now in the making. What will be gained and what will be given up? Do we know?

Institutional Performance

Conduct of faculties, administrators, and students alike has a tremendous effect upon institutional performance as measured against a variety of objective and subjective scales. For students, perhaps one of the greatest opportunities for improving the effectiveness of institutions of higher learning, and hence their conduct and performance, is through providing greater flexibility in offering educational services within our existing system. Such moves now well underway (reducing years required, less rigid admissions, etc.) minimize the need for institutional reform while offering great potential for enhanced learning at less cost to both students and society. Efforts in this direction must be intensified as they offer exceedingly high payoff potentials with exceedingly low institutional start-up and maintenance costs. New degree structures, new interinstitutional cooperation, and new means of certification do not obviate or seriously threaten existing institutional structures or functions.

¹⁵ June O'Neill, *Resource Use in Higher Education* (New York: Carnegie Commission on Higher Education) 1971.

¹⁶ Myron Lieberman, "Professors, Unite!" *Harper's* (October 1971), pp. 61-70; L. H. Schein, "The Reluctant Professor: Implications for University Management," *Sloan Management Review* (Fall 1970), pp. 35-49.

One might speculate as to why institutions have lagged behind in their efforts to offer services in a more flexible manner. Until about 1968, no incentives existed—negative or positive—for administrators to manage their portfolios more effectively. Sophisticated computation scheduling models, resource prediction models, student flow models, cost estimating and allocating systems all collected dust and fell on deaf ears.¹⁷ All the fine efforts of WICHE, System Research Group, and now NCHEMS achieved little in changing present system conduct and performance. Discouragement was great for such professional dedication to bringing “rational analysis” to designing educational systems capable of servicing unique needs of professionals and students alike. Indifference of top administrators to new analytical methods was explainable. Universities generally were not *organized* or staffed to engage in various sorts of developmental planning which would facilitate orderly change.¹⁸ Until recently, some schools even failed to examine the rationale of tuition rates. Increases filled appropriation gaps. Even today, most administrators probably would know what to expect revenue-wise *if* variable tuition rates would be applied. Additionally, low tuitions of state schools have had a deleterious effect on private institutions, forcing ultimate state support in some cases. The conduct of “public school administrators” in this regard can be questioned. To what extent is competition good for the total system? Whether good or bad, the battle is now on for student commitments. Early admissions and heavy recruitment efforts continue. We can ask, “to what end?”

In determining tuition policy, do administrators and trustees utilize studies like Campbell's which found that income and price (tuition) explained 87% of the variation of demand for higher education?¹⁹ A finding that student demand responded positively to changes in income and negatively to changes in prices (tuition) is profound. In view of Cartter's data that indicate opportunity costs (wages foregone while in school) represent a major part of

¹⁷For example see S. M. Lee and E. R. Clayton, “A Goal Programming Model for Academic Resource Allocation,” *Management Science*, Vol. 18 (April 1972), pp. B395-B407.

¹⁸A. T. Peacock and A. J. Angler, *Economic Aspects of Student Unrest*. Occasional Paper No. 26, The Institute of Economic Affairs (London, England, 1969).

¹⁹R. Campbell and B. N. Siegel, “The Demand for Higher Education in the United States, 1919-1964,” *The American Economic Review*, 57 (1967), pp. 482-494; A. M. Cartter, “The Supply of and Demand for College Teachers,” *Journal of Human Resources*, 1 (1966), pp. 22-38. For two alternative demand models for higher education, see: H. Galper and R. Dunn, “A Short-run Demand Function for Higher Education in the U.S.,” *Journal of Political Economy*, 77 (1969), incorporates effect of

total costs, we could predict what a 10% increase in real wages and a 30% increase in tuition might do to student demand.²⁰

Another example is worth noting. Considerable discussion focuses upon "educational opportunity banks" or lending arrangements whereby students borrow funds at reasonable not market interest rates to finance their education. Various repayment schedules would facilitate payback over the earning life of the students. Planners have *assumed* something about the propensity of students to borrow given the opportunity to do so. A recent study of graduate students enrolled at several large state schools revealed a "resistance level" beyond which students would not borrow regardless of lending rates or arrangements. This fact may reflect changing values of educational investments on the part of students who make the investments and the market that evaluates the worth of degree training.²¹ As master state planners know, estimating demand, given uncertain effects of subsidies and changing market manpower requirements, is a tricky affair.²² Several studies suggest that the ratio of eligible students to enrolled students has not changed significantly and that the relationship between aggregate demand for higher education and economic variables is positive. How can we perform well as

military service on demand, and P. Feldman and S. Hoernack, "Private Demand for Higher Education in the U.S.," in *The Economics of Financing of Higher Education in the United States* (Washington, D.C.: U.S. Government Printing Office, 1969), examines additional variables like aptitude test performance, unemployment and earnings data and regional dummy variables.

²⁰A. M. Cartter, "The Economics of Higher Education," in *Contemporary Economic Issues*, Ed., Neil W. Chamberlain (Homewood, Ill.: R. D. Irwin, 1969).

²¹Herman P. Miller, "Annual and Lifetime Income in Relation to Education: 1939-59," *American Economic Review* (December 1960), pp. 962-985. Findings suggest a percentage differential (increase occurred over period of study) exists. However, no strong evidence offered that differential was not caused by a shift in demand for better educated labor force; H. S. Houthakker, "Education and Income," *Review of Economics and Statistics*, Vol. 41 (Feb. 1959), pp. 24-28.

²²For examples of statewide master planning the following are excellent sources: The Master Plan Survey Team, *A Master Plan for Higher Education in California, 1960-1975* (Sacramento: California State Department of Education, 1960); North Carolina State Board of Higher Education, *Planning for Higher Education in North Carolina* (Raleigh: North Carolina State Board of Higher Education, 1968); Indiana State Policy Commission on Post High School Education, *Report of the State Policy Commission on Post High School Education* (Indianapolis: State of Indiana, 1968); The University of the State of New York, *The Regents' Statewide Plan for the Expansion and Development of Higher Education, 1964* (Albany, N.Y.: The State Education Department, 1965).

administrators *if* such facts are not decisively included in our development plans?

These discussions merely point out one isolated issue. Other examples could be cited. Regardless of the relatively high fixed costs associated with higher education over which administrators have relatively little control (including increased fuel costs, added security forces, increasing insurance, and tenured faculty), administrative obligations require more intensive examination of alternative effects of policy decisions. Top administrators must be given the responsibility to manage their portfolios in the best interest of consumers and suppliers of capital. They must be capable administrators who recognize the nature of institutional life and the means of enriching that life experience within realistic economic means and constraints. Outstanding administrators should not be penalized for being poor scholars. Success should be rewarded accordingly in terms of economic, social, and professional criteria. An incentive to perform, as well as an imperative, must exist. College and university administrators will need to recast their staff services and administrative philosophies as they encounter the turbulent seas before them. Calm water is not in view, but the journey can be enjoyable even though demanding.

After all is said and done, the ultimate success or failure of the educational venture is dependent upon how the professional intellect is received and served by society. History records well this constant struggle of conflicting values and motives. Somehow the quest for knowledge seems to fuel and energize the educational enterprise regardless of level of support. But faculty performance levels closely parallel professional commitment levels. Policy decisions have the power of alternately increasing and decreasing commitment to the educational enterprise even if only temporarily. Needless reductions must be avoided as structural and functional modifications are contemplated. Frequently considered a third-order magnitude problem, our investments in faculty are significant and must be protected through prudent assessments of their true contributions to society.

A Concluding Observation

What counts is what we finish by way of accomplishments, not what we start. Let's be certain that what we start in the name of academic renewal has both meaningful purpose and a reasonable chance for success. For today in higher education this truly is the nature of the problem: we may be mistaking activity for accomplishment.

ACT PUBLICATIONS

ACT Monographs

ACT Monographs on selected topics in educational research are published periodically as a public service. Copies of the monographs may be obtained for \$3.00, if available, by writing to the Publications Division, The American College Testing Program, P.O. Box 168, Iowa City, Iowa 52240. Check or money order must accompany request.

Monograph Two: *The Two-Year College and Its Students: An Empirical Report*, edited by Leo A. Munday.

Monograph Three: *The Ghetto College Student: A Descriptive Essay on College Youth from the Inner City*, by Gordon D. Morgan.

Monograph Four: *Open Admissions and Equal Access*, edited by Philip R. Rever.

Monograph Five: *Financing Higher Education: Alternatives for the Federal Government*, edited by M. D. Orwig.

Monograph Six: *Assessment in Colleges and Universities*, edited by Fred F. Harclerod and Jean H. Cornell.

Monograph Seven: *The New Colleges: Toward an Appraisal*, edited by Paul L. Dressel.

Monograph Eight: *Blueprint for Change: Doctoral Programs for College Teachers*, by Paul L. Dressel and Frances H. DeLisle.

ACT Special Reports

The *ACT Special Reports* listed may be obtained, at the cost indicated, by writing to ACT Publications, P.O. Box 168, Iowa City, Iowa 52240. Check or money order must accompany request.

No. 1 *When You Listen, This Is What You Can Hear . . .*, by Gordon A. Sabine. Iowa City, Iowa: The American College Testing Program, 1971. \$3.00.

- No. 2 *Comprehensive Information Systems for Statewide Planning in Higher Education*. Iowa City, Iowa: The American College Testing Program, 1971. \$1.00.
- No. 3 *Teachers Tell It-Like It Is, Like It Should Be*, by Gordon A. Sabine. Iowa City, Iowa: The American College Testing Program, 1971. \$3.00.
- No. 4 *Special Degree Programs for Adults: Exploring Nontraditional Degree Programs in Higher Education*, by Roy Troutt. Iowa City, Iowa: The American College Testing Program, 1972. \$2.00.
- No. 5 *Emerging Students... and the New Career Thrust in Higher Education*. Iowa City, Iowa: The American College Testing Program, 1972. \$2.00.

ACT CONSULTATION SERVICES

The Educational Services Division of The American College Testing Program maintains 11 field offices and a professional staff of 30 to assist secondary schools, institutions of higher education, and educational agencies in making optimum use of ACT data and services. To request assistance or to obtain information regarding The American College Testing Program, contact the office serving your area.

NATIONAL OFFICE

Arthur E. Smith, Vice President
Thomas C. Oliver, Assistant Vice President
Joe B. Henry, Director, Financial Aid Program
Keith J. Jepsen, Assistant Director, Financial Aid Program
Warren K. Willis, Director, Career Planning Program
Barbara G. Fowler, Administrative Assistant

WESTERN REGION

*(Alaska, California, Hawaii, Idaho,
Nevada, Oregon, Washington)*

Western Regional Office

The American College Testing Program
Downtown Plaza Towers, Suite 515
555 Capitol Mall
Sacramento, California 95814
Telephone: 916/444-6966

J. Dan Reer, Regional Director
Charles N. Guerrero, Asst. Director
James W. Rollings, Asst. Director
Lorraine I. Larson, Admin. Asst.

Southern California Office

The American College Testing Program
P.O. Box U
Agoura, California 91301
Telephone: 213-889-8220

Bob J. Gilliam, Asst. Director

MOUNTAIN-PLAINS REGION

*(Colorado, Kansas, Montana, Nebraska,
North Dakota, South Dakota, Utah,
Wyoming)*

Mountain-Plains Regional Office

The American College Testing Program
Executive Office Building
720 Pearl Street
Boulder, Colorado 80302
Telephone: 303/443-1247

Regional Director

Marcus C. Ruger, Asst. Director
Jane H. Beagle, Admin. Asst.

Kansas-Nebraska Office

The American College Testing Program
P.O. Box 1104
Manhattan, Kansas 66502
Telephone: 913/539-6551

Donald D. Davis, Assoc. Director

[Continued]

SOUTHWESTERN REGION

*(Arizona, Arkansas, New Mexico,
Oklahoma, Texas)*

Southwestern Regional Office

The American College Testing Program
7 Briarcroft Office Park, Suite 110
Fubbock, Texas 79412
Telephone: 806 744-8443

Vernon L. Odom, Regional Director
Aubrey E. Lewis, Asst. Director
Dorothy H. Ballard, Admin. Asst.

Texas Office

The American College Testing Program
909 Dalworth, Suite 201A
Grand Prairie, Texas 75050
Telephone: 214 263-3259

James R. Tarter, Assoc. Director

Oklahoma-Arkansas Office

The American College Testing Program
Nichols Hills Executive Building
Suite 105
6403 N.W. Grand Boulevard
Oklahoma City, Oklahoma 73116
Telephone: 405 843-0439

Robert G. Sanders, Asst. Director

MIDWESTERN REGION

*(Illinois, Indiana, Iowa, Michigan,
Minnesota, Missouri, Ohio, Wisconsin)*

Midwestern Regional Office

The American College Testing Program
899 Skokie Boulevard
Northbrook, Illinois 60062
Telephone: 312 498-2810

Lee Noel, Regional Director
Aaron E. James, Asst. Director
Bruce B. Kelly, Asst. Director
Michael V. Mulligan, Asst. Director
R. Thomas Wares, Asst. Director
Mary E. Diamond, Admin. Asst.

Ohio-Indiana Office

The American College Testing Program
133 North Prospect Street
Bowling Green, Ohio 43402
Telephone: 419 352-5317

Thomas J. Colaner, Asst. Director

SOUTHEASTERN REGION

*(Alabama, Florida, Georgia, Kentucky,
Louisiana, Mississippi, North Carolina,
South Carolina, Tennessee, Virginia)*

Southeastern Regional Office

The American College Testing Program
20 Perimeter Park, Suite 101
Atlanta, Georgia 30341
Telephone: 404 458-3293

Ronald G. Eaglin, Regional Director
James B. Alinder, Jr., Asst. Director
Robert L. Clayton, Asst. Director
Bill E. Lunelord, Asst. Director
Dorothy S. Burvee, Admin. Asst.

EASTERN REGION

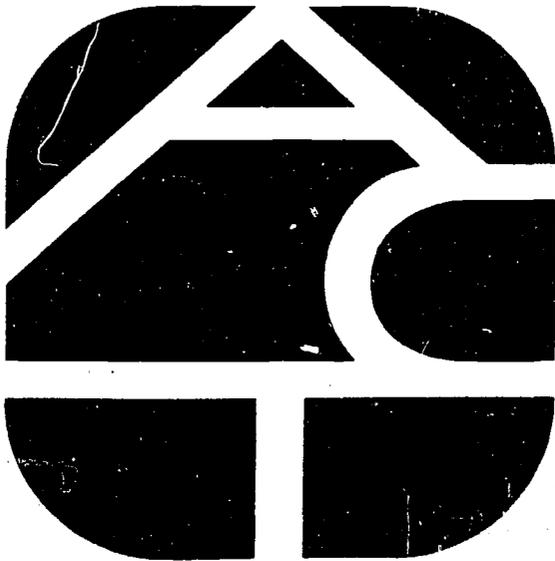
*(Connecticut, Delaware, District of
Columbia, Maine, Maryland,
Massachusetts, New Hampshire, New
Jersey, New York, Pennsylvania, Rhode
Island, Vermont, West Virginia)*

Eastern Regional Office

The American College Testing Program
General Washington Building
216 Goddard Boulevard
King of Prussia Pennsylvania 19406
Telephone: 215 265-0345

Peter L. Fisher, Regional Director
Donald J. Carstensen, Asst. Director
Daniel H. Schaeffer, Asst. Director
Dianne E. Broerman, Admin. Asst.

ACT SPECIAL REPORT SIX



THE AMERICAN COLLEGE TESTING PROGRAM